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"There is hereby established a State Veterinary College at Cornell University." Laws of New York, 1894, p. 307.

ANNOUNCEMENT

OF THE

NEW YORK STATE

VETERINARY COLLEGE

AT

CORNELL UNIVERSITY

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1896-7

ITHACA, N. Y.
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NEW YORK STATE VETERINARY COLLEGE—MAIN BUILDING.

"There is hereby established a State Veterinary College at Cornell University." Laws of New York, 1894, p. 307.

ANNOUNCEMENT

OF THE

NEW YORK STATE

VETERINARY COLLEGE

AT

CORNELL UNIVERSITY

ITHACA, N. Y.
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1896

FACULTY OF THE
NEW YORK STATE VETERINARY COLLEGE

JACOB GOULD SCHURMAN, D.Sc., L.L.D., *President.*

JAMES LAW, F.R.C.V.S., *Professor of Principles and Practice of Veterinary Medicine, Veterinary Sanitary Science, and Veterinary Therapeutics.*

————————, *Professor of Principles and Practice of Veterinary Surgery, Zootechny, Obstetrics, and Jurisprudence.*

PIERRE AUGUSTINE FISH, B.S., D.Sc., D.V.S., *Assistant Professor of Veterinary Physiology, Materia Medica and Pharmacy.*

VERANUS ALVA MOORE, B.S., M.D., *Professor of Veterinary Pathology and Bacteriology, and of Meat Inspection.*

SIMON HENRY GAGE, B.S., *Professor of Microscopic Methods, Histology and Embryology.*

GRANT SHERMAN HOPKINS, B.S., D.Sc., *Assistant Professor of Veterinary Anatomy and Anatomical Methods.*

BENJAMIN FREEMAN KINGSBURY, A.B., Ph.D., *Instructor in Veterinary Pathology and Bacteriology.*

RAYMOND CLINTON REED, Ph.B., *Instructor in Microscopic Methods, Histology and Embryology.*

PROFESSORS AND TEACHERS IN CORNELL UNIVERSITY WHO FURNISH INSTRUCTION TO VETERINARY STUDENTS.

GEORGE CHAPMAN CALDWELL, B.S., Ph.D., *Professor of Agricultural, Analytical and Physiological Chemistry.*

LEWIS MONROE DENNIS, Ph.B., B.S., *Associate Professor of Analytical Chemistry.*

WILLIAM RIDGLEY ORNDORFF, A.B., Ph.D., *Assistant Professor of Organic Chemistry.*

EMILE MOUNIN CHAMOT, B.S., *Instructor in Toxicology.*

FREDERICK LAWRENCE KORTRIGHT, D.Sc., *Instructor in Chemistry.*

HENRY HENDERSON DENHAM, B.S., *Instructor in Chemistry.*

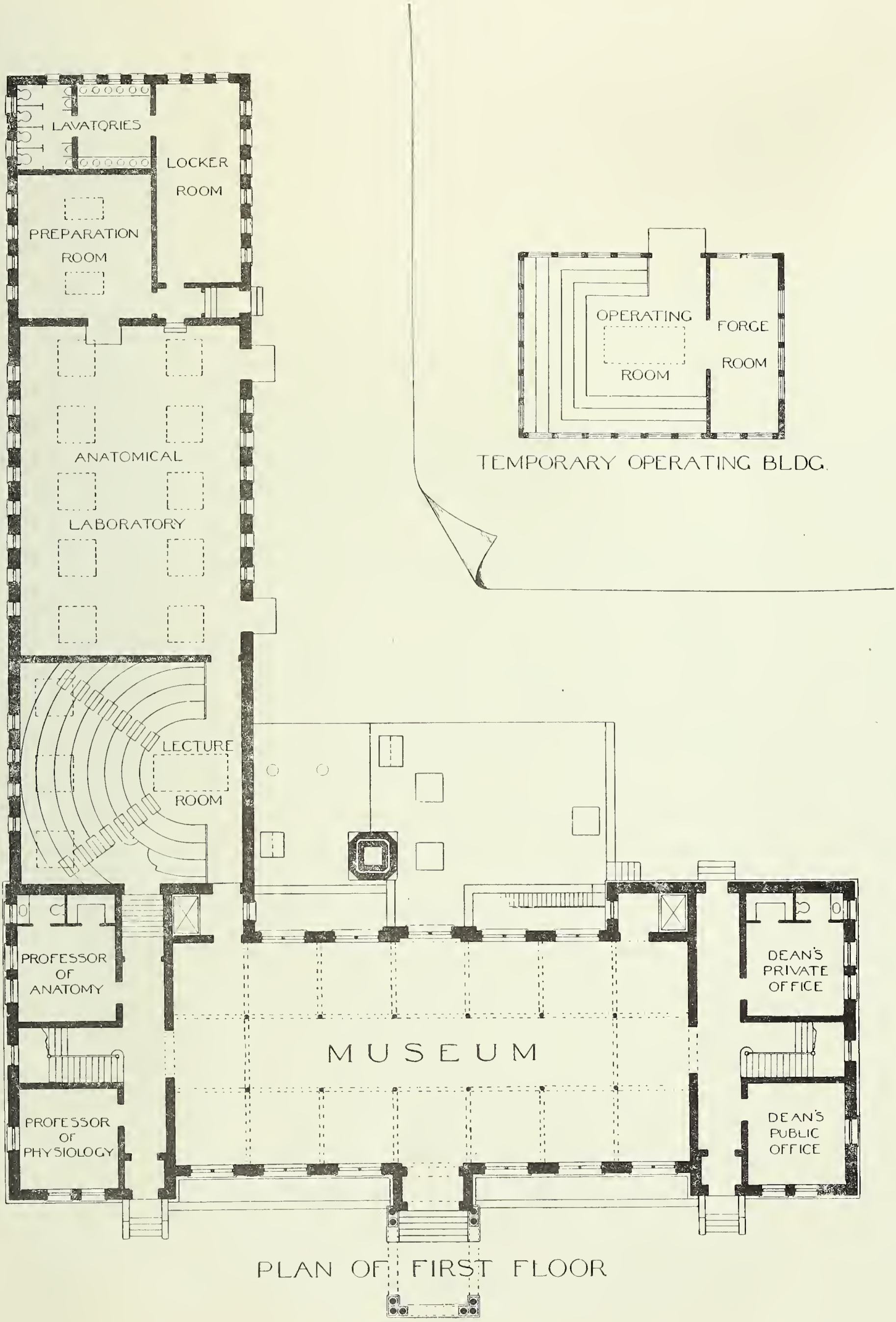
GEORGE PLATT KNOX, B.S., *Assistant in Chemistry.*

ISAAC PHILLIPS ROBERTS, M.Agr. *Professor of Agriculture.*

HENRY HIRAM WING, M.S., *Assistant Professor of Animal Industry and Dairy Husbandry.*

JOHN HENRY COMSTOCK, B.S., *Professor of Entomology and General Invertebrate Zoology.*

ALEXANDER DYER McGILLIVRAY, *Assistant in Entomology.*



TEMPORARY OPERATING BLDG.

PLAN OF FIRST FLOOR

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FOUNDATION.

The New York State Veterinary College at Cornell University originated in the following legislation :

AN ACT to establish a State Veterinary College at Cornell University.

Became a law March 21, 1894, with the approval of the Governor. Passed, three-fifths being present.

The People of the State of New York, represented in Senate and Assembly, do enact as follows :

SECTION 1. There is hereby established a State Veterinary College at Cornell University. For the purpose of constructing and equipping suitable buildings for such college upon the grounds of said university, at Ithaca, New York, the sum of fifty thousand dollars, or so much thereof as may be necessary, is hereby appropriated, to be paid by the treasurer upon the warrant of the comptroller, upon vouchers approved by the commissioner of agriculture, to the Cornell University. No part of such moneys shall be expended until plans and specifications for the construction and equipment of such buildings, and of the location thereof, shall have been approved by the commissioner of agriculture, nor until the comptroller shall have certified that in his judgment the expense of the completion and equipment of such buildings, in accordance with such plans and specifications, will not exceed the amount of such appropriation. Such buildings and equipment shall be the property of the state.

§ 2. This act shall take effect immediately.

At their first meeting (June 20, 1894,) after the enactment of the foregoing law, the Board of Trustees of Cornell University adopted the following preamble and resolution :

WHEREAS, The Legislature of the State has passed an act (approved March 21, 1894,) to establish a State Veterinary College at Cornell University ; and

WHEREAS, An institution for instruction and investigation in Veterinary Science, of higher rank than any now in existence in America, is urgently needed in order that the power of science may stay the terrible havoc made by tuberculosis and other diseases among animals and human lives in this State ; and

WHEREAS, No power but the State is potent enough to cope with these diseases, or has the authority to use all the means necessary for their extermination ; and the Governor and other State officers have officially declared that the chief obstacle at the present time to success on the part of the State is the lack of trained veterinarians, and they have officially recommended the establishment by the State of an institution at Cornell for investigation and instruction in all the sciences relating to animal diseases ; and the Legislature has, without a dissenting voice, passed an act for the establishment of such State Veterinary College, and for the appropriation of $50,000 to construct buildings therefor, which act has been approved by the Governor and become a law ; and

WHEREAS, It is the policy of Cornell University, in conformity with its ideal of a people's university, to co-operate with the State in scientific work for the improvement of the farm, garden, dairy, animal, and other interests of the State, in so far as existing departments may, without detriment to the University, be utilized, or new departments may be expressly established by the State, for the purpose of such cooperation: therefore

Resolved, That the Board of Trustees authorize the location on the University grounds of the State Veterinary College and express their willingness, when the State shall have made sufficient provision for buildings, equipment and maintenance, to administer the State Veterinary College in such manner as may be hereafter agreed upon, subject, however, to the condition, that the University is not to undertake any part whatsoever of the financial responsibility connected with the State Veterinary College, whether for buildings, equipment, care, experimentation, investigation, instruction, or any other object, though, for the sake of reducing the cost of maintenance to the State, the University consents to furnish instruction to students of the State Veterinary College in such scientific and other subjects as are now or may hereafter be included in the curriculum of the University, upon such terms as may be deemed equitable, regard being had to the fees paid by University students for instruction in such courses.

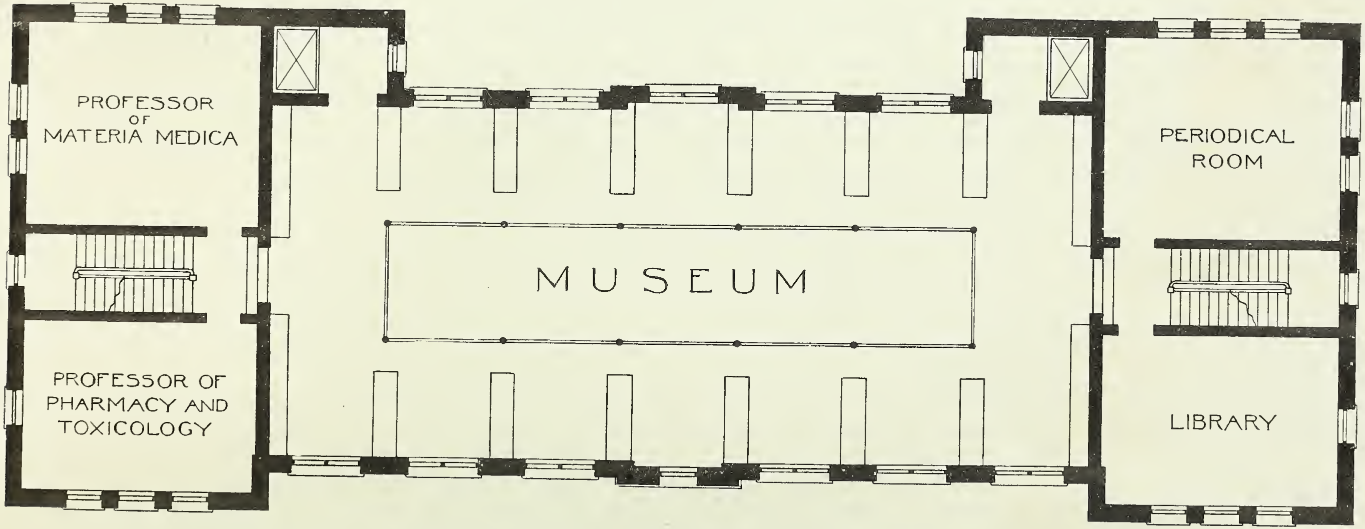
AN ACT relating to the State Veterinary College at Cornell University.

Became a law May 10, 1895, with the approval of the Governor. Passed, three-fifths being present.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

SECTION 1. For the purpose of constructing and equipping suitable buildings for the State Veterinary College at Cornell University, at Ithaca, New York, the sum of one hundred thousand dollars, or so much thereof as may be necessary, is hereby appropriated out of funds not otherwise appropriated, to be paid by the treasurer, upon the warrant of the comptroller, upon vouchers approved by the commissioner of agriculture, to the Cornell University. No part of such moneys shall be expended until plans and specifications for the construction and equipment of such buildings and the location thereof shall have been approved by the commissioner of agriculture, nor until the comptroller shall have certified that, in his judgment, the expenses of the completion and equipment of such buildings, in accordance with such plans and specifications, will not exceed the amount of such appropriation. Such buildings and equipment shall be the property of the state.

§ 2. This act shall take effect immediately.


PROFESSOR OF MATERIA MEDICA
PROFESSOR OF PHARMACY AND TOXICOLOGY
MUSEUM
PERIODICAL ROOM
LIBRARY

PLAN OF SECOND FLOOR

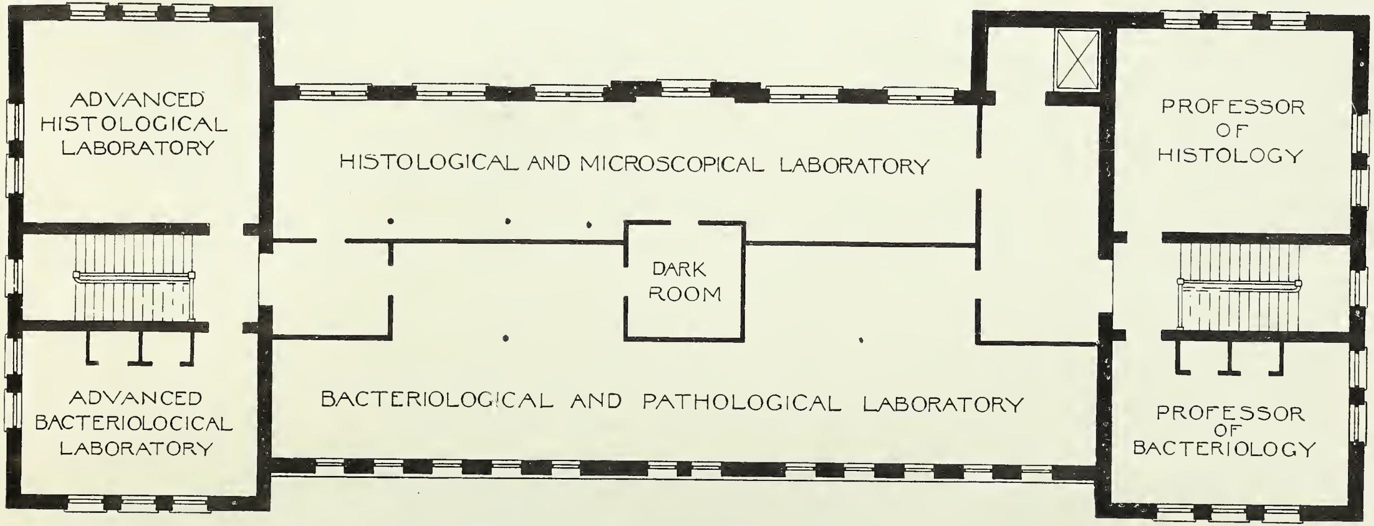
OBJECT OF THE INSTITUTION.

The New York State Veterinary College was founded to raise the standard of veterinary instruction and investigation to the level of the most recent advances in biology and medicine. The number of farm animals in this State (9,450,000), and their value ($131,200,000), with a yearly product, in milk alone, of over 5,000,000,000 gallons, give some idea of the great interest at stake in the matter of live stock. For the United States a value in live stock of, approximately, $2,000,000,000, and a yearly sale, in Chicago alone, of $250,000,000 worth, bespeak the need of all that learning and skill can do for the fostering of this great industry. Another consideration is that the normal permanent fertilization of the soil is dependent on the live stock kept, and that where there is a deficiency of animals, the productiveness of the land is steadily exhausted ; so that the health and improvement of animals and the fostering of the animal industry, lie at the very foundation of our national wealth. Another, and no less potent argument, for the highest standard of veterinary education, is its influence on the health of the human race. With a long list of communicable diseases, which are common to man and beast, and with the most fatal of all human maladies —tuberculosis—also the most prevalent affection in our farm herds in many districts, it is to the last degree important that measures for the extinction of such contagion in our live stock should receive the best attention of the most highly trained experts.

To justify the liberality of the State in creating this seat of learning, it will be the aim of the College to thoroughly train a class of veterinarians for dealing with all diseases and defects that depreciate the value of our live stock, and with the causes which give rise to them, to recognize and suppress animal plagues, which rob the stock owner of his profits, and cause widespread ruin ; to protect our flocks and herds against pestilences of foreign origin, and to protect human health and life against diseases of animal origin. It will further aim, so far as it has the means and opportunity, at establishing a center of investigation, looking towards such improvements in the breeding, care and management of animals as may enhance their market value and make returns more speedy and profitable ; towards discoveries in therapeutics, and the immunization of animals and men from contagion ; and towards the production of organic compounds to be employed in diagnosis, treatment and immunizing. So much has been recently discovered in these directions, and present knowledge points so unmistakably to coming discovery, that to neglect this field at the present time would be decidedly reprehensible. Apart from discovery, the mere production of reliable articles of these organic products which are coming into increasing demand by the State and the private practitioner, for prevention, diagnosis and treatment, is an object not to be lightly set aside. The combination in one institution of educational facilities with scientific investigation, and the production of the organic extracts to be employed in the modern medical methods, is a feature calculated to insure the best work in all departments, and the most exceptional advantages for the diligent student.

LOCATION AND GROUNDS.

The New York State Veterinary College is located at Ithaca, on the campus of Cornell University, fronting on East Avenue, and facing the University buildings. Electric cars on East Avenue convey students and visitors to any part of the city. Ithaca, with its population of 12,000, is situated at the head of Cayuga Lake, 262 miles distant from New York City, and on the lines of the Delaware, Lackawanna and Western, the Lehigh Valley, and the Elmira, Cortland and Northern railroads. The University grounds are half a mile from the


ADVANCED HISTOLOGICAL LABORATORY
HISTOLOGICAL AND MICROSCOPICAL LABORATORY
PROFESSOR OF HISTOLOGY
DARK ROOM
ADVANCED BACTERIOLOGICAL LABORATORY
BACTERIOLOGICAL AND PATHOLOGICAL LABORATORY
PROFESSOR OF BACTERIOLOGY

PLAN OF THIRD FLOOR

business center of the city and 400 feet higher, commanding a view of 30 miles of valley and lake. They comprise 270 acres, of which 140 are used by the department of agriculture, and furnish home facilities for clinics and zootechnics. On the campus of 80 acres are 36 professors' houses, 5 fraternity houses, and over 30 University and College buildings.

BUILDINGS.

The buildings for the State Veterinary College are seven in number, as follows :

The MAIN BUILDING, 142 feet by 42 feet and three stories high, overlooks East Avenue and an intervening park of 220 feet by 300 feet. The walls are of dull yellowish buff pressed brick, on a base of Gouverneur marble ; window and door facings of Indiana limestone, and terra cotta ornamentation. On the first floor are the museum and rooms for the dean and the professors of anatomy and physiology. The second floor is devoted to the upper part of the museum, a lecture room, reading room, library and rooms for professors. The third floor is devoted to laboratories of histology, pathology and bacteriology and the necessary subsidiary offices.

Connected with the main building and forming its EAST WING is a structure of 90 feet by 40, and one story high. This contains the laboratories, lecture room and other offices of anatomy and physiology. Its floors are of impermeable granolithic cement, the walls lined by enamelled white brick, and the ceilings covered with sheet steel.

A second extension from the main building is the BOILER AND ENGINE ROOM, where power is generated for heating, ventilation, lighting and the elevators.

The SURGICAL OPERATING THEATRE is a separate building in the rear of the main building, and is furnished with rooms for forge, instruments, water heater, &c. The lighting and equipment, and the facilities for demonstration, have been specially attended to.

The GENERAL PATIENTS' WARD, 100 feet by 31, is furnished with box and other stalls, heating apparatus, baths and all necessary appliances. The floor is of impermeable granolithic cement, and the ceilings of painted sheet steel. There is also a fodder room of 20 by 30 feet.

THE ISOLATION WARD, 54 feet by 15, has its stalls absolutely separated from one another and each opening by its own outer door. It has the usual granolithic floor, with walls of vitrified brick and painted sheet steel ceilings.

The MORTUARY BUILDING has impermeable floor, walls of enamelled brick and painted steel plate ceilings, and is fitted with every convenience for conducting post mortem examinations and preparing pathological specimens.

Another building of 51 feet by 20 will be devoted to clinical uses.

These, with a cottage for the stud groom, complete the list of State buildings erected for Veterinary College. The equipment will be made as complete as possible for both educational uses and original research.

VETERINARY COLLEGE YEAR.

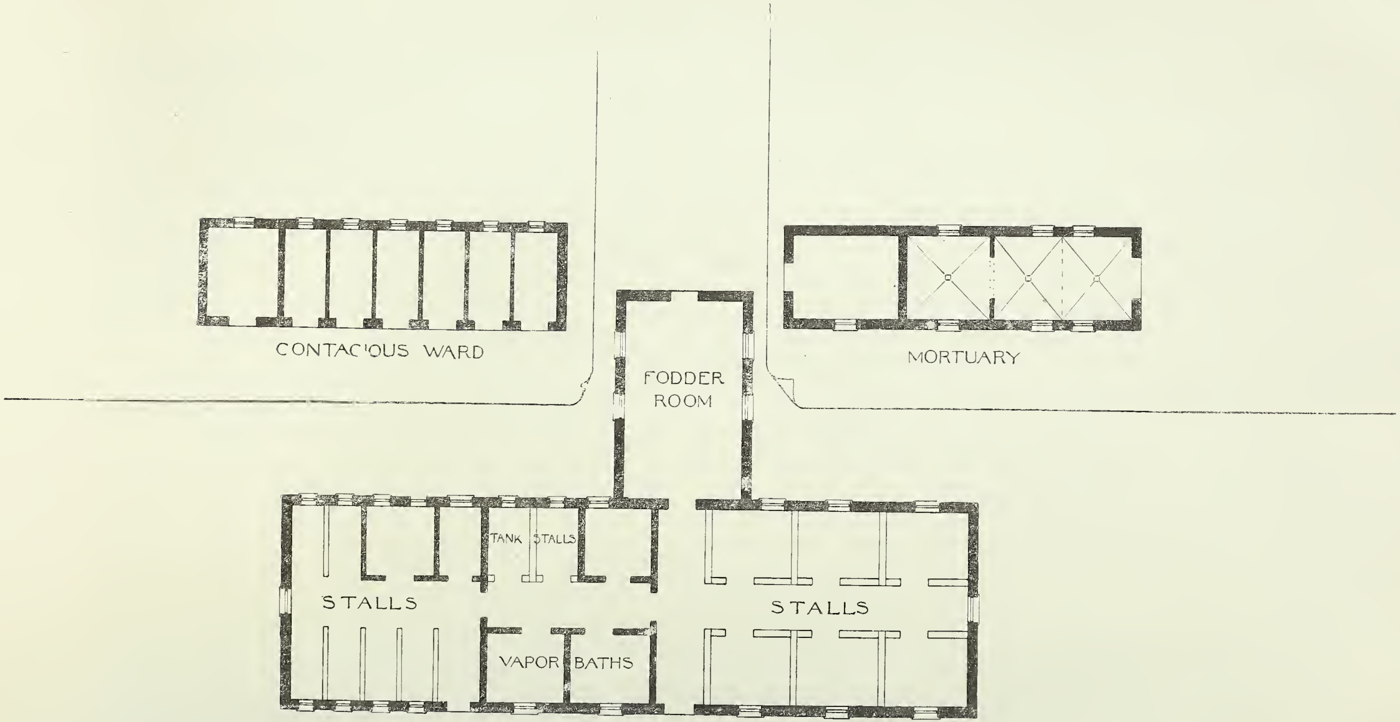
The Veterinary College year for 1896–7 begins Tuesday, September 15, 1896, and closes Thursday, June 17, 1897, being divided into three terms, with one intermission of twelve days at Christmas, and one of nine days in the spring. Students must present themselves for registration on the days fixed for that purpose.

ENTRANCE EXAMINATION.

Candidates for admission to the State Veterinary College, excepting those specified below, must pass satisfactory examinations in the following subjects :

A. IN SEPTEMBER, 1896.

1. In *English*. One hour of examination is assigned to answering questions upon the books marked *A*. Two more hours are occupied with writing three essays (250 words each) upon subjects taken from the books marked *B*.



PLAN OF GENERAL WARD

The books prescribed for 1896 are : *A.* Shakespeare, A Midsummer-Night's Dream ; De Foe, History of the Plague in London ; Irving, Tales of a Traveller ; Scott, Woodstock ; Macaulay, Essay on Milton ; Longfellow, Evangeline ; George Eliot, Silas Marner. *B.* Shakespeare, The Merchant of Venice ; Milton, L'Allegro, Il Penseroso, Comus, Lycidas ; Webster, First Bunker Hill Oration.

For 1897 : *A.* Shakespeare, As You Like It ; De Foe, History of the Plague in London ; Irving, Tales of a Traveller ; Hawthorne, Twice Told Tales ; Longfellow, Evangeline ; George Eliot, Silas Marner. *B.* Shakespeare, The Merchant of Venice ; Burke, Conciliation with America ; Scott, Marmion ; Macaulay, Life of Samuel Johnson.

For 1898 : *A.* Milton, Paradise Lost, Books i and ii ; Pope, Iliad, Books i and xxii ; The Sir Roger de Coverly papers in the Spectator ; Goldsmith, The Vicar of Wakefield ; Coleridge, The Ancient Mariner ; Southey, Life of Nelson ; Carlyle, Essay on Burns ; Lowell, The Vision of Sir Launfal ; Hawthorne, The House of the Seven Gables. *B.* Shakespeare, Macbeth ; Burke, Conciliation with America ; De Quincey, Flight of a Tartar Tribe ; Tennyson, The Princess.

The object of the examination is to test the candidate's ability to express himself clearly and correctly ; also, to test his familiarity with the works prescribed.

No candidate markedly deficient in English will be admitted to any course in the University.

Regents' diplomas are not accepted in place of the entrance examination, unless they cover six academic English counts, including English Composition, or three full years of the English course established by the Regents, February, 1893. School certificates are not accepted in place of the entrance examination. But candidates coming from schools the certificates of which have been accepted in other subjects may obtain exemption from the one-hour examination in books marked *A*, by submitting specimens of school work upon these books. Printed directions to this end must be procured from the Registrar, not later than the first of January.

Candidates (except those admitted to advanced standing from other colleges) wishing to receive credit for Freshman English will be required to pass a special examination in the University work of that year. Printed directions are to be obtained from the Registrar, not later than the first of June.

2. In *Geography*, political and physical ; as much as is contained in the larger school geographies, though more careful treatises such as those of Longmans and of Keith Johnston are recommended.

3. In *Physiology and Hygiene ;* the equivalent of Martin's "The Human Body" (briefer course), and of Wilder's "Health Notes" and

"Emergencies." The treatises of Hutchinson, Huxley, Jenkins and Walker are accepted as equivalents of Martin.

4. In *American History;* Montgomery's "Leading Facts in American History," or its equivalent.

5. In *Arithmetic* [including the metric system of weights and measures], as much as is contained in the larger American and English text books.

6. In *Plane Geometry*, as much as is contained in the larger American and English text books.

7. In *Algebra* [through quadratic equations, and including radicals and the theory of exponents], as much as is contained in the larger American and English text books.

As a substitute for Plane Geometry and Algebra, candidates may offer one of the following subjects:

8. Elementary French (see below) understood to be equal to eight Regents' counts, or two years of high school French.

9. Elementary German (see below) understood to be equal to eight Regents' counts, or two years of high school German.

10. Entrance Latin (see below) understood to be equivalent to ten Regents' counts, or two and one-half years of high school Latin.

11. Entrance Greek (see below) understood to be equivalent to eight or ten Regents' counts, or two to two and one-half years of high school Greek.

B. IN JUNE AND SEPTEMBER, 1897, AND THEREAFTER.

1. English. 2. Geography. 3. Physiology and Hygiene. 4. American History. 5. Arithmetic. 6. Plane Geometry. 7. Algebra. (As above under A) and any three of the following:

8. Elementary French. 9. Elementary German. 10. Entrance Latin. I., Grammar and Cæsar. 11. Entrance Latin. II., Virgil, Cicero and Composition. 12. Entrance Greek. 13. An amount of any group of the following making the equivalent of two years of high school work: Physics, Botany, Geology, Vertebrate Zoology, Invertebrate Zoology, Advanced French, Advanced German.

In *French.* French grammar and translation at sight of ordinary nineteenth century prose. The student should have read four hundred duodecimo pages of at least three different authors, not more than one-half being from works of fiction.

First and second year French, upon a Regents' diploma, would be accepted as an equivalent for the Elementary German required for admission.

All applicants are required to present at the examination a statement from their teachers of the amount of French previously read, the text books used and the proficiency attained.

(The following requirements for admission to Cornell University in Elementary German are the same as those agreed upon by the Conference of representatives from Columbia, Harvard, Pennsylvania, Princeton, Yale and Cornell Universities.)

Elementary German. *A.* The rudiments of grammar, and especially with these topics: The declension of articles, adjectives, pronouns, and such nouns as are readily classified; the conjugation of weak and of the more usual strong verbs; the commoner prepositions; the simpler uses of the modal auxiliaries; the elementary rules of syntax and word order. The proficiency of the applicant may be tested by questions on the above topics and by the translation into German of simple English sentences. *B.* Translation at sight of a passage of easy prose containing no rare words. It is believed that the requisite facility can be acquired by reading not less than two hundred duodecimo pages of simple German.

Practice in pronunciation, in writing German from dictation, and in the use of simple German phrases in the classroom, is recommended.

Applicants for admission offering elementary or advanced German are required in each case to present a statement from their teacher, mentioning the text books used and the authors read, including the number of pages translated from German into English and English into German.

First and second year German, upon a Regents' diploma, would be accepted as an equivalent for the requirements of elementary German for admission.

In *Latin*. Examinations in the following authors, with questions on the subject matter, contractions, and the formation and inflection of words: I. Cæsar, four books of the Gallic War, or an equivalent amount of Cornelius Nepos. II. Virgil, six books of the Æneid with the prosody; Cicero's six orations, including the four against Catiline; and Latin Composition based on Allen's and Jones's Latin Composition.

In *Greek*. Candidates are expected (1) to have read, at least, one hundred pages of Attic prose and eighteen hundred lines of Homer; (2) to have acquired such facility in reading at sight as will enable them to read without previous preparation, but with the aid of a vocabulary of unusual words, simple passages of Attic prose; (3) to be thoroughly familiar with the inflectional forms, the principles of derivation and the outlines of syntax; (4) to have completed Jones's Greek Prose Composition, or the first two parts of Allinson's.

ADMISSION ON "REGENTS' VETERINARY STUDENTS' CERTIFICATE."

Students are admitted without further examination on the Regents' *Veterinary Student Certificate*. For students entering in 1896, and who will graduate not later than 1899, the Regents' Veterinary Students' Certificate is given on passing a successful examination upon two years of high school work, or 24 Regents' counts.

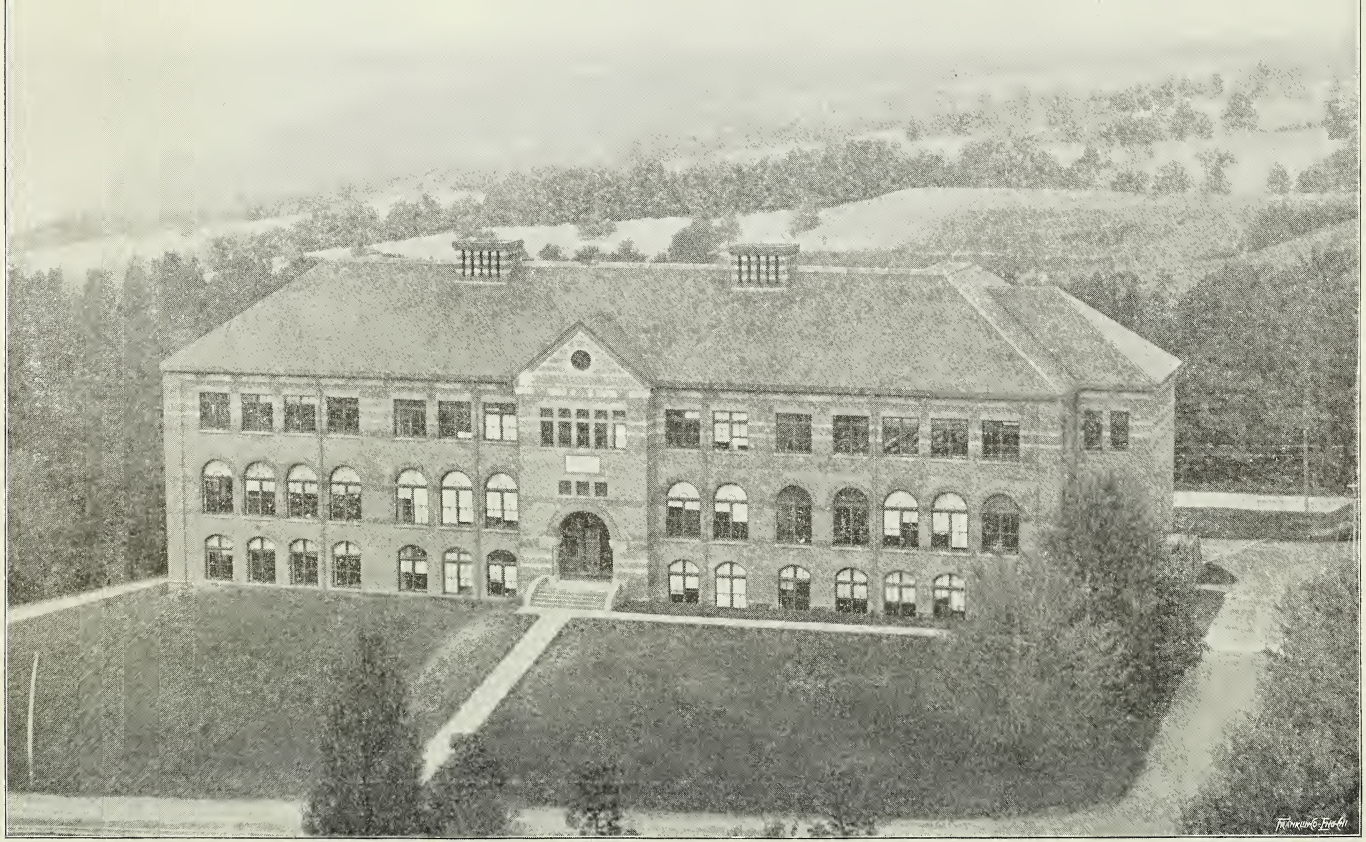
For students entering in 1897, and thereafter, it is based on four years of high school work, or 48 Regents' counts.

Full information may be obtained by addressing "Examination Department, University of the State of New York, Albany."

ADMISSION TO ADVANCED STANDING.

Graduates of other Veterinary Colleges, and undergraduates of such institutions who present letters of honorable dismissal, may be admitted provisionally to such standing, and upon such terms as the faculty may deem equitable in each case, regard being had to the applicant's previous course of study, and to the evidence of proficiency exhibited. Every such candidate is required, at the time of making his application, to forward to the Director of the Veterinary College, along with a catalogue of the institution in which he has studied, a careful statement, duly certified, of the studies which he has pursued, and the degree of proficiency attained therein, including his record at the entrance examinations. To avoid delay in arranging the course, these credentials should be presented at an early date, in order that the status of the applicant may be determined, as far as is possible, before his arrival. Application for credit, in all subjects for which credit is desired, must be made at the time of the admission of the applicant, and not be postponed to a later date in his course.

A student who has thus been admitted provisionally to a class, may, after a residence of at least one term, be granted full and regular standing in that class, if, having taken the



MORSE HALL—CHEMISTRY.

regular studies of the term, he give proof, by passing the regular term examinations with a record as high as is required for graduation, that he is able to go on satisfactorily with the class to which he has thus been temporarily assigned. Should he be unable to pass these examinations, special examinations may then be held, or the terms of his admission revised, and he shall take the position and rank to which he may thereby be found entitled.

In the case of students thus admitted, the amount of work must be equal to at least fifteen hours a term for each term in the University.

By Chapter 860 of the Laws of New York of 1895, students who had matriculated in a Veterinary Medical School before October 1, 1895, and who shall graduate before July 1, 1898, are exempt from the requirements of the entrance examinations, which is demanded of all graduating after the date last named.

COURSES IN VETERINARY MEDICINE.

With the view of raising the standard of veterinary instruction, it is intended to establish a graded course extending over four years, as in the various departments of Cornell University, and in the best veterinary schools abroad. As a step towards this, a three years' course has been laid out for students entering in 1896. This is a decided advance upon any Veterinary College in America, as the majority of even the three year schools give only five months' instructions per year, amounting to but fifteen months in all ; while, with an academic year of nine months, the New York State Veterinary College furnishes a total instruction-period of twenty-seven months. Add to this that the Veterinary Practice Statute, prescribing two years of successful high school work as the condition of entering on veterinary studies in 1896, and four years of high school work for admission in 1897, adds more than an additional year to anything demanded on the part of American veterinary schools, and ensures that the student, with a mind already trained to mental processes, will acquire much more in the same length of time than the untrained mind can possibly do.

THREE YEARS' COURSE IN VETERINARY MEDICINE.

LEADING TO THE DEGREE OF D.V.M.

First Year, 1896–7.	*1st Term*	*2d Term*	*3d Term*
General Inorganic Chemistry. M. W. F.	3	3	3
Anatomical Methods; General Descriptive Anatomy. M. T. W. Th.	4	4	4
Microscopic Methods. M. T. W. Th. F.	5		
Histology. M. T. W. Th, F.		5	
Embryology. M. T. W. Th. F.			5
Veterinary Physiology. M. T. W. Th	4	4	
Veterinary Materia Medica and Pharmacy. M. T. W. Th.			4
Breeds and Breeding of Domestic Animals. Dissections.	2	2	2
	18	18	18

Second Year, 1897–8.			
Organic Chemistry. M. W. F.	3	3	3
Physiological Chemistry. T. Th.	2	2	2
Veterinary Medicine: Principles and Practice, Definitions, Etiology, Symptomatology, Prophylaxis, Diathetic Diseases; Diseases of Digestive Organs, Liver, Pancreas, Spleen. M. W. F.	3	3	3
Veterinary Sanitary Science and Police: Contagion, Microbes, Toxins, Enzyms, Defensive Proteids, Antitoxins, Chemiotaxis, Phagocytosis, Susceptibility, Immunity, Contagious Diseases. T. Th.	2	2	2
Veterinary Surgery: Principles and Practice. M. W.	2	2	2
Veterinary Teratology and Obstetrics. T. Th.	2	2	2
Parasites and Parasitism. W. F.	2		
Veterinary Therapeutics. T. Th.		2	2
Operative Veterinary Surgery			
Clinical Veterinary Medicine.			
Bacteriology.	2	2	2

THREE YEARS' COURSE IN VETERINARY MEDICINE.

LEADING TO THE DEGREE OF D.V.M.

Third Year, 1898–9.	*1st Term.*	*2d Term*	*3d Term*
Veterinary Medicine: Principles and Practice, Definitions, etc.; Diseases of the Respiratory, Circulatory, Lymphatic, Nervous, Urinary, Cutaneous, Occular and Aural Systems. M. W. F.	3	3	3
Toxicology. T. Th.	2		
Veterinary Jurisprudence: Unsoundness, Vices, Blemishes, Abnormalities, Redhibitory Defects, Age, Warranty, Certificates. T. Th.	2	2	2
Veterinary Surgery: Antiseptic, Dental, Pedal; Shoeing. M. W.	2	2	2
Surgical Pathology. T. Th.	2	2	2
Zootechny, F.	1	1	1
Pathology and Pathological Anatomy.		3	4
Dissections. Post Mortem Examinations. Clinical Veterinary Medicine, daily. Operative Veterinary Surgery, daily. Seminary Work in Veterinary Medicine, Surgery, Examinations for Soundness, State Medicine, etc. Thesis.			

COURSES AND MEANS OF INSTRUCTION.

(Subjects taken under instructors in Cornell University are marked with an asterisk.)

* CHEMISTRY.

The department of Chemistry offers in all thirty-five courses of instruction. The veterinary student will avail of the following: Lectures and recitations in Inorganic Chemistry, 2 hours per week; Laboratory work, 2½ hours per week; Organic Chemistry, 3 hours a week for one year; Physiological Chemistry, 2 hours a week for one year; Toxicological Chemistry, 2 hours a week for one term. Morse Hall, built at a cost of $80,000, is exclusively devoted to

Chemistry, and an annex of four stories is already arranged for. The laboratories furnish the most ample accommodation for practical work, and the lectures are fully illustrated by specimens, demonstrations and lantern views. The chemical library, in the building and accessible to students, contains complete sets of all important journals, and is very fully supplied with works of reference and standard books on chemistry and allied subjects.

*ENTOMOLOGY AND INVERTEBRATE ZOOLOGY.

The admirably appointed laboratory of entomology is in White Hall, and the elaborate museum in McGraw Hall; while the breeding and study of the live invertebrates are mainly conducted in the Insectary on East Avenue. A special course in Helminthology and Parasites will be given to the veterinary students.

MICROSCOPE AND MICROSCOPICAL METHODS.

A course of lectures and laboratory work, covering 5 hours a week for one term, gives the student a comprehensive working knowledge of the use of the microscope and the methods of microscopic investigation of animal tissues.

VERTEBRATE HISTOLOGY.

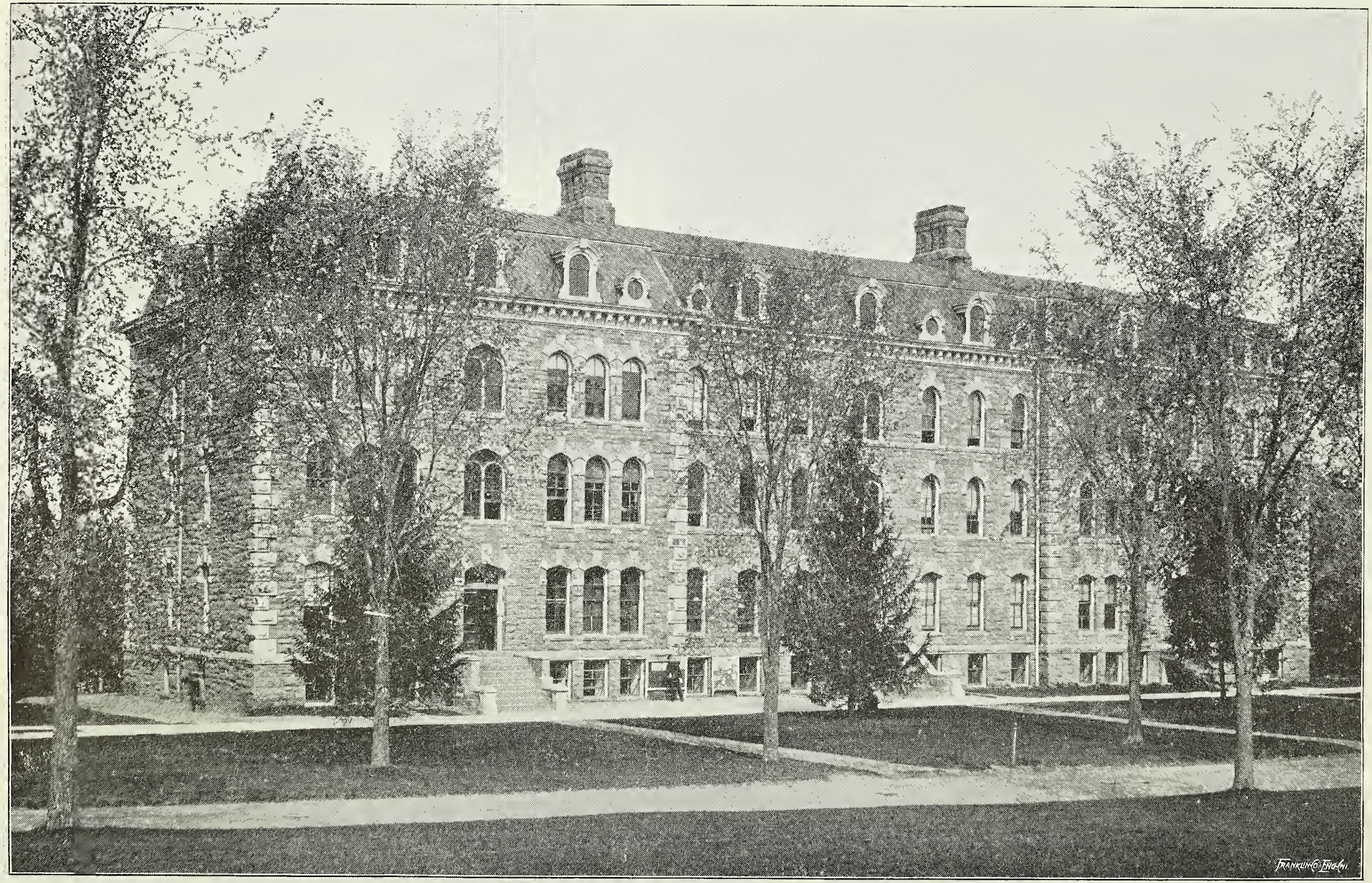
This is taught in a 5 hours' course for one term, with an abundant supply of the best microscopes and other necessary apparatus. The student receives a thorough preparation for the successful study of Anatomy, Physiology, Embryology and Pathology.

EMBRYOLOGY.

A comprehensive study of this whole subject is given in a course of 5 hours a week for one term.

*BREEDS, BREEDING AND MANAGEMENT OF FARM LIVE STOCK.

A course of 2 hours a week for two terms is given on Breeds, Breeding, Selection and Management of Dairy and



WHITE HALL—ENTOMOLOGY, PARASITES.

Beef Cattle. Another course of one term is given on Breeds, Breeding and Care of Horses, Sheep and Swine. These lectures are given in Morrill Hall.

DESCRIPTIVE ANATOMY OF HORSE, OX, SHEEP, SWINE, DOG AND POULTRY.

This course, given in the north wing of the State Veterinary College main building, will include 4 lectures a week throughout one year, and 3 lectures in the first term of the second year. It will be profusely illustrated by dry and wet specimens, dissections, diagrams, models and lantern views. The Auzoux models afford valuable illustration for class room demonstration and private study. In the laboratory as much time as possible will be devoted to dissection, and every student will be required to go over each genus of animal in this way prior to graduation. Demonstrations will be given daily in the laboratory by the professor.

PHYSIOLOGY OF HORSE, OX, SHEEP, SWINE, DOG AND BIRD.

This will be conducted as lectures and demonstrations throughout one year. It will consider, for the different farm animals, the physiology of the blood and sanguification, of circulation, of respiration, of digestion, of absorption, of nutrition, of heat production, of metabolism, of the secretions, of the skin, of motion, of phonation, of the nervous system, of the sense organs, and of reproduction. These exercises will be conducted in the north wing of the State Veterinary College main building.

TOPOGRAPHICAL ANATOMY OF THE DOMESTICATED ANIMALS.

A course of lectures and demonstrations on Regional Anatomy of the Farm Animals will give special attention to the topic in its diagnostic and surgical aspects, while embracing the physiological and pathological significance as well. These will be given in the north wing of the main building.

PRINCIPLES AND PRACTICE OF VETERINARY SURGERY.

This course, extending over the year, will embrace lectures and illustrative operations upon all the domestic animals. It will cover Inflammation, Abscess, Ulceration, Gangrene, and Neoplasms. The different kinds of wounds and their tendency in the various animals ; shock, wound fever, infection of wounds, pyogenic, septicæmic, erysipelas, tetanus, rabies, glanders, anthrax, hæmorrhagic anthrax, malignant œdema, etc.; methods of healing in wounds ; treatment of wounds ; wounds of different parts and structures ; fractures, luxations, sprains ; injuries and diseases of joints ; diseases of bones ; surgery of the blood vessels, respiratory organs, digestive organs, urinary organs, generative organs ; skin, lymphatic and blood glands ; tumors, simple and malignant ; cancers ; amputations ; plastic and reparative surgery ; anæsthesia and anæsthetics ; bandaging ; casting and securing for operations, etc.

ANTISEPTIC AND ASEPTIC SURGERY.

A course on this subject will consider its applicability and success in the different genera of domestic animals ; the condition, of the buildings, the health of the subject, the antisepsis of the animal, of the operator, of assistants, of sponges, towels and instruments, of dressings and bandages. The bactericidal power of the normal tissues, the conditions for selection of aseptic and antiseptic methods, the dry and moist methods, the modes of healing, the demands and methods for drainage, etc.

SURGICAL PATHOLOGY.

The morbid conditions, macroscopical and microscopical incident to the various surgical diseases, will be fully treated, and the interdependence of various surgical maladies, and of these with medical affections, will receive due attention. The differences incident to the various genera of farm animals will form a prominent feature of this course.

VETERINARY DENTAL SURGERY.

A course on Veterinary Dentistry will treat of the general structure of the teeth and gums in the different genera; the development of the teeth; anomalies in number, size or direction; fractures and dislocations of teeth; caries; inflammations of the pulp, periodontal membrane and jaw bone; overgrowth of teeth from deffective wear, in malformed jaws, broken teeth, misdirected teeth, superfluous teeth, or absence of teeth. The effects of the state of health and nutrition during dentition, and of the different kinds of food on the teeth, and the action of irritants in causing dentinal tumors, will receive attention. Also the effects of dental disease on insalivation, digestion and nutrition, upon bitting and driving, and upon nervous disorders.

VETERINARY PEDAL SURGERY AND HORSE-SHOEING.

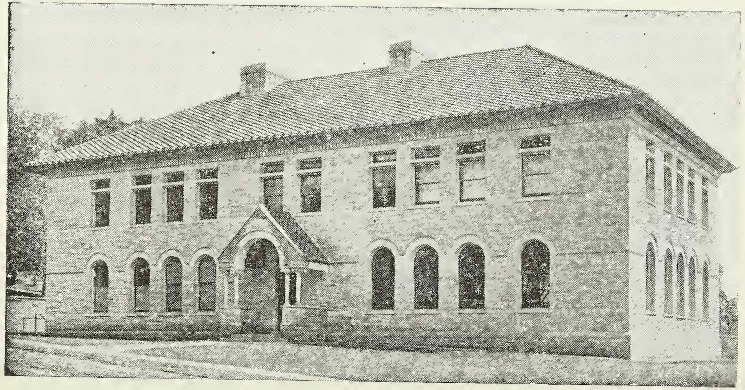
A course of lectures and demonstrations on the diseases and surgery of the foot of the horse and other domestic animals, and upon the shoeing of horses, mules and oxen, will extend over one term, 3 hours a week. Under Shoeing will be considered the various metals and other materials used as shoes, the forging and fitting of the shoe, the preparation of the foot, the effect of correct or faulty adjustment on the foot itself, on the bones, joints, muscles and tendons of the limb, and on action; the shoes and shoeing of the different classes of horses; expansion and anticontraction shoes; shoes for pathological conditions; weights, spreaders, etc. The preservation of the natural foot, the securing of uniform bearing and pressure, the forms that conduce to ease, comfort and grace of movement, and the methods of nails and nailing, will receive special attention. Level and curved shoes, shoes with and without cogs (calks), tips, periplantar shoes, and others, will be fully discussed. The sharpening, or "frosting" of the shoes for ice, and the many forms of removable ice-cogs and frost sandals, will be reviewed. Under the many diseases of the foot, the interdependence of the mechanism of foot and limb, will be treated, and the therapeutics adapted to the benefit of both.

VETERINARY PATHOLOGY AND PATHOLOGICAL ANATOMY.

An extended course under this heading will deal with the intrinsic nature of the different morbid processes in the various domestic animals; the arrest or alteration of functions; the modification of nutrition and metabolism; the significance of trophic and calorific changes; of circulatory and respiratory variations; of differences of innervation; of impaired and exalted sensation, or motion; of altered secretions, and of microscopical and macroscopical lesions, etc. Dealing with the nature and essential causes of disease, this is the rational supplement of anatomy, physiology and histology, and furnishes the sound basis for the scientific practice of medicine and for a rational prophylactics and therapeutics.

VETERINARY BACTERIOLOGY.

An extended course in Bacteriology will seek to cover the rapidly expanding field of microbian disease; the life-history and artificial culture of pathogenic bacteria and zoophytes; their existence otherwise than as animal parasites; compulsory parasites and incidental (facultative) parasites; ærobic and anærobic bacteria, differences under varying environment; bacteria grown in different genera or culture media; bacterial products, toxic and nontoxic, alkaloidal and neutral, peptic products; relations of bacteria and their products to the living tissues of different organs in different genera of animals; phagocytosis, antitoxins, globulins, nucleins; immunity of genus, family or individual, innate or acquired; theories of immunity; methods of securing temporary and prolonged immunity; antitoxins, toxins; weakened bacteria, or those having changed habit; minimum dose; combination with antiseptics, or with antagonistic microbe; mutual reactions of bacterial products; mutual antidotal action; antagonistic physiological action of bacterial products; devitalizing action of the products of one bacterium on the life of another variety, etc. Extensive laboratory accommodation is provided on the upper floor of the main building, where a thorough equipment will offer the best



DAIRY SCHOOL BUILDING.

facilities for special education and original investigation in this subject.

HELMINTHOLOGY AND PARASITISM.

In addition to the University course in the natural history of animal parasites, a special course will be given in the Veterinary College on the pathogenic effects of the respective parasites, animal and vegetable, on the different farm animals, and the best methods of their prevention and treatment. The collection of animal parasites, already extensive, will be constantly increased so as to make the demonstrations more nearly perfect in this line.

VETERINARY OBSTETRICS.

A course of lectures on Veterinary Obstetrics will be given in the State Veterinary College, with suitable illustrations, diagrams, specimens and models. The equipment in instruments is the best in the country, and no pains will be spared to make the course as nearly perfect as possible. It will embrace the anatomy, physiology and development of the generative organs in the different genera of farm animals, their relation to other parts of the animal organism, the physiology of reproduction and gestation, the feeding and management of the pregnant animal, the anomalies and diseases of gestation, normal and difficult parturition and the causes of the latter ; teratology, varieties of monsters, theory of their formation, moles ; the operations and other treatment required in the different forms of dystokia, the management of the parturient state, and the diseases attendant on and following parturition, with their treatment.

PRINCIPLES AND PRACTICE OF VETERINARY MEDICINE.

This course, extending over two years, 3 hours a week, will deal with the principles of medicine, and the specific diseases and groups of diseases ; their etiology, symptoms, nature, diagnosis, prevention and treatment. Constitutional diseases ; ephemeral fever—fatigue fever, and toxic fever from transient disorders of various kinds ; diseases of digestive organs, of the respiratory organs, of the circulatory organs, of the blood glands, of the blood and of sanguification, of the urinary organs, of the skin, and of the nervous system, will be dealt with as seen in the different domesticated mammals and birds. While diseases of the horse shall be given full attention, elaborate attention will be given to the morbid conditions of all the other and often less valuable farm animals, as well. The too common practice of giving attention to the solipede alone and letting the other animals practically go by default, will be carefully guarded against, the object being to educate an all round comparative veterinary pathologist, whose advice may be trustfully sought for farm animals of all kinds. The location of the college in the city of Ithaca, surrounded by a busy agricultural community, offers special facilities for practical illustrative work along all these lines.

VETERINARY MATERIA MEDICA AND THERAPEUTICS.

A course of lectures, extending over two terms, on the articles of the materia medica, their sources, nature, preparations, and physiological and therapeutical action on the different genera of animals. These will be extensively illustrated by crude drugs and pharmaceutical preparations, and by apparatus and demonstrations used in pharmaceutical manipulation. Instruction in prescription and prescription writing will also be given. These will be delivered in the main building of the college.

VETERINARY PHARMACY AND PRACTICAL THERAPEUTICS.

In the practical course in compounding prescriptions, all students must take part in turn, and to such an extent as to familiarize them with the methods, manipulation and practical applications.

ZYMOTIC DISEASES AND VETERINARY SANITARY SCIENCE AND POLICE.

A course of 2 hours a week for one year will deal with zymotic diseases, theories of zymosis and contagion ; the conditions of soil, climate, season, weather, agriculture, trade, war, etc., as causative factors ; bacteria and other parasites as factors ; bacterial toxic products as causes ; diagnosis, segregation, occision, disinfection, immunization ; State control, animal census, marking, registration, inspection in life and *post mortem*, quarantine, compensation, appraisement, killing, disinfection, etc. In case of enzootic diseases, the necessary attention to buildings, drainage, soils, exposure, wells, basins, ponds, factories, and other local causes, will be fully dealt with. Each zymotic or contagious disorder will be made a special study, commencing with those due to local insanitary conditions, followed by such as attack animals only while sparing the human being, and concluding with those in which man and animals reciprocate in the maintenance and diffusion of the infection. These will be given in the main building of the State Veterinary College.

INSPECTION OF MEAT AND MILK, BUTTER AND CHEESE.

This course will treat of the physical and chemical properties of the healthy meat of the various animals used for food, of putrefying meat, of soured meat ; of the flesh of animals with constitutional or blood diseases, of that of emaciated or cachectic animals ; of meat infested with animal or vegetable parasities—psorosperma, trichina, echinococcus, cysticercus, strougyles, stephanurus, distoma, filaria, pentastoma, acarus, œstrus, actinomycosis, haplococcus ; of meat from animals affected by contagious diseases—anthrax, tuberculosis, erysipelas, glanders, rabies, lung plague, milk-sickness, rinderpest, pyæmia, septicæmia, etc. Also the meat of animals suffering from other febrile or inflammatory diseases, or of their consequences. The inspection of milk will deal with its chemical and physical alterations, with the presence of poisons, and of bacteria and disease products as shown by the centrifuge, microscope and culture.

WARRANTY AND COMMERCIAL JURISPRUDENCE IN RELATION TO VICES, DEFECTS AND UNSOUNDNESS; EXAMINATIONS, DIAGNOSIS, CERTIFICATES.

This course will cover the ground of written and implied warranty, of damages incurred by breach of such warranty; of the systematic professional examination of each genus of animals, for vices, communicable diseases and unsoundness; the forms of certificates and the giving of evidence.

VETERINARY OPHTHALMOLOGY.

A course will be given on the diseases and defects of the eyes of all domestic animals, with their causes, prevention and treatment. Instruction in the use of the ophthalmoscope will constitute a part of this course.

EXTERNAL FORM AND ZOOTECHNICS.

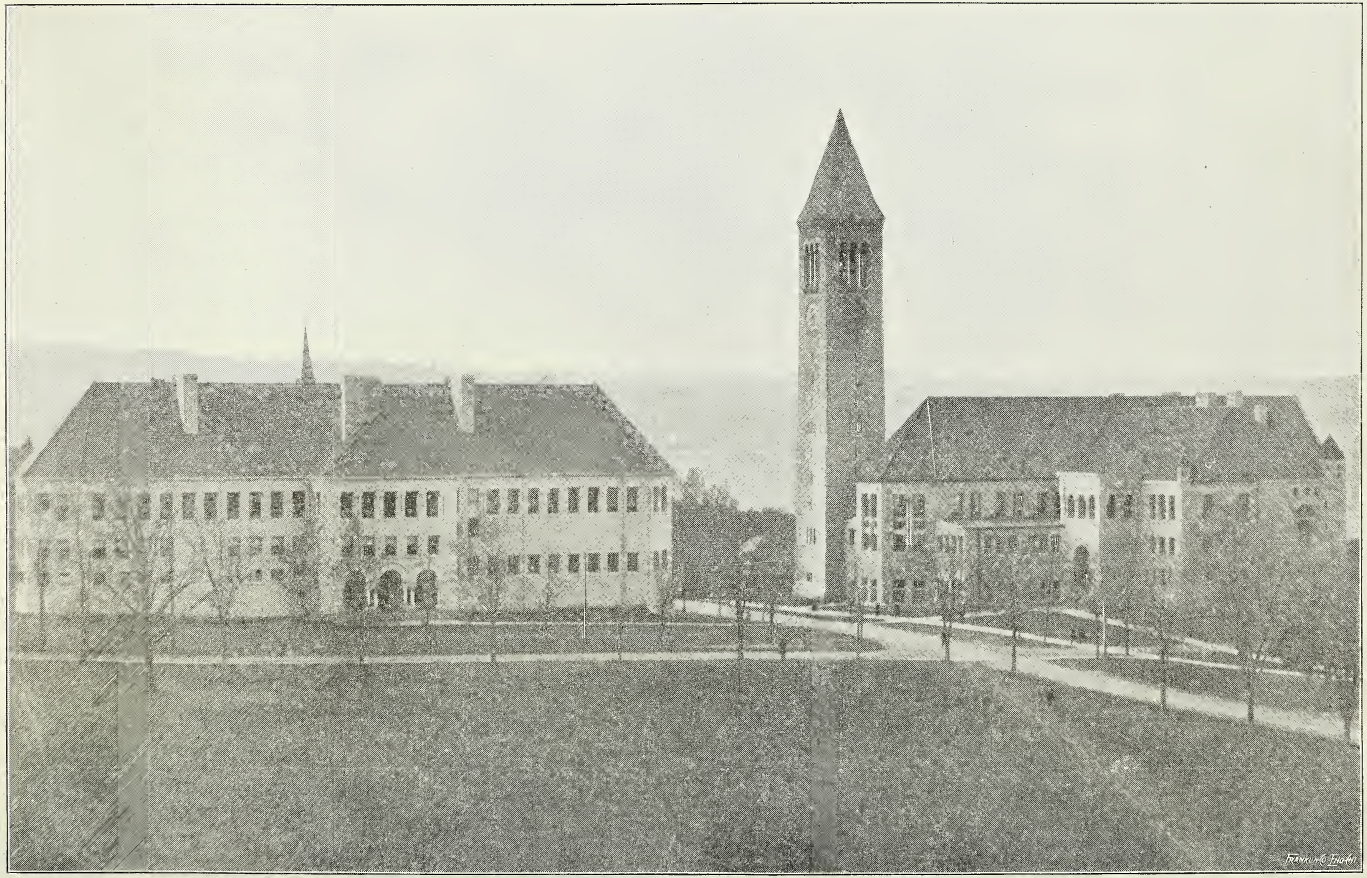
A course will be given on external form in its relation to use—power, action, early maturity, fattening, etc.; and on the elements of zootechny which have not been treated in connection with breeds and breeding.

CLINICAL VETERINARY MEDICINE.

The practice of veterinary medicine will have daily illustrations in the free clinics give at prescribed hours, as well as in the case of patients detained in the wards. The senior students will be required to serve as ward clerks and assistants in turn, so as to familiarize them with the methods of treatment.

CLINICAL AND OPERATIVE SURGERY.

The free clinic will furnish cases for operative surgery from all classes of domestic animals, and senior students will act in turn as assistants and clinical clerks, and will operate on special subjects under the direction of the professor of surgery.



LAW SCHOOL AND LIBRARY.

REPORTS ON HYPOTHETICAL AND REAL CASES IN SANITARY POLICE AND VETERINARY JURISPRUDENCE.

Subjects will be assigned to senior students and each must furnish satisfactory reports in this field of study.

CORNELL UNIVERSITY LIBRARY.

The library building, the gift of the Hon. Henry W. Sage, was built at a cost of nearly $300,000. It contains about 185,000 volumes, and has shelf-room for 450,000. Nearly 600 periodicals are regularly received. The reading room has desks for 220 readers, and on its walls a reference library of 8,000 volumes. An endowment fund of $300,000, the gift of Mr. Sage, furnishes an income which secures a rapid yearly increase of the library. The library of zoological, physiological, medical and veterinary works accumulated in the past 27 years is now extensive and valuable.

TUITION FEES AND OTHER CHARGES.

Tuition fees will be $100 per annum, excepting in the case of the holders of State Scholarships, to whom all tuition is free.

Laboratory material will be charged for at cost, and every person taking laboratory work must deposit with the Treasurer security for the materials to be used.

EXPENSES.

The expense of text books, instruments, etc., may be as low as $25 per annum. Board, with room, fuel and light, may be had in Ithaca at about $4 per week.

THE HORACE K. WHITE PRIZES.

These prizes, established by Horace K. White, Esq., of Syracuse, are awarded annually to the most meritorious students in the Department of Veterinary Science, as follows: To the first in merit, $20; to the second in merit, $10.

OPENINGS FOR VETERINARIANS IN AMERICA.

1st. In the United States Cavalry and Artillery there is a demand for a limited number of veterinarians.

2nd. In the Bureau of Animal Industry a number of veterinarians are employed professionally, as inspectors of live animals, inspectors and superintendents of quarantine stations, inspectors of markets and abattoirs, inspectors of pork for trichina and larval tapeworms, and investigators in bacteriology and pathology.

3rd. In the different States there are appointments as State Veterinarians, and in some as County or District Veterinarians, to attend to preventable diseases of animals.

4th. The time is not far distant when each municipality must have its veterinary inspectors of markets, abattoirs and butcher meat, as well as of milk and other dairy products.

5th. Accomplished veterinary pathologists are needed in all the States to serve on tuberculosis and other commissions, so that work in this field may be conducted intelligently and successfully on scientific lines. Such work on our herds can only be carried on by those specially trained in the anatomy, physiology, hygiene and pathology of the lower animals.

6th. Educators in comparative pathology are wanted in Agricultural and Veterinary Colleges, and experiment stations, and must ere long be in demand for every Medical College which aims to keep abreast of the times.

7th. There are always openings in the wide field of private veterinary practice. With a ratio of three farm animals to every human being, and with less than one veterinarian to every ten doctors of medicine for man, the balance of opportunity seems to be largely in favor of the veterinary practice, and this preponderance must steadily increase with the recovery of stock values and with the increase in numbers and individual value of farm animals.

View of Cornell University Campus from the South.

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"There is hereby established a State Veterinary College at Cornell University." Laws of New York, 1894, p. 307.

ANNOUNCEMENT

OF THE

NEW YORK STATE VETERINARY COLLEGE

AT

CORNELL UNIVERSITY

1897-98

ITHACA, N. Y.
PUBLISHED BY THE UNIVERSITY
1897

CALENDAR OF THE NEW YORK STATE VETERINARY COLLEGE

1897–98

FALL TERM—1897

Sept. 14, Tuesday.	Entrance examinations begin.
Sept. 20, Monday.	Registration of matriculated students.
Sept. 21, Tuesday.	Registration of matriculated students.
Sept. 22, Wednesday.	Registration of new students.
Sept. 23, Thursday.	Instruction begins. President's Annual Address to all students. 12 M.
Oct. 15, Friday.	Announcement of thesis subjects to the Secretary of the Faculty, Room 11.
Nov.—, Thursday.	Thanksgiving Day.
Dec. 23, Thursday.	Christmas recess begins.

WINTER TERM—1898

Jan'y 4, Tuesday.	Winter term begins. Registration.
Jan'y 11, Tuesday.	Founder's Day.
Feb'y 22, Tuesday.	Washington's Birthday.
March 26, Saturday.	Spring recess begins.

SPRING TERM—1898.

April 5, Tuesday.	Spring term begins Registration.
May 3, Tuesday.	Theses due.
May 30, Monday	Decoration Day.
June 7 and 8, Tue. and Wed.	Examination of Candidates for a degree.
June 9, Thursday.	Work ends.
June 16, Thursday.	Commencement.

FALL TERM—1898.

Sept. 13, Tuesday.	Entrance examinations begin.

NEW YORK STATE VETERINARY COLLEGE—MAIN BUILDING.

"There is hereby established a State Veterinary College at Cornell University." Laws of New York, 1894, p. 307.

ANNOUNCEMENT

OF THE

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OFFICERS OF ADMINISTRATION

OF THE

NEW YORK STATE VETERINARY COLLEGE

The Board of Trustees of Cornell University, in which are included the following State Officers: His Excellency the Governor, His Honor the Lieutenant-Governor, the Speaker of the Assembly, the Superintendent of Public Instruction; also the President of the State Agricultural Society.

VETERINARY COLLEGE COUNCIL.

The President of Cornell University, JACOB G. SCHURMAN.
The Director of the Veterinary College, *Professor* JAMES LAW.
The Treasurer of Cornell University; EMMONS L. WILLIAMS.
Professor WALTER L. WILLIAMS.
Professor SIMON H. GAGE.

CHARLES EZRA CORNELL, *Secretary of the Council.*

FACULTY OF THE
NEW YORK STATE VETERINARY COLLEGE.

JACOB GOULD SCHURMAN, A.M., D.Sc., LL.D., *President.*

JAMES LAW, F.R.C.V.S., *Professor of Principles and Practice of Veterinary Medicine, Veterinary Sanitary Science, and Parasitism.*

WALTER L. WILLIAMS, D.V.S., *Professor of Principles and Practice of Veterinary Surgery, Zoötechny, Obstetrics, and Jurisprudence.*

PIERRE AUGUSTINE FISH, D.Sc., D.V.S., *Assistant Professor of Comparative Physiology, Pharmacology and Therapeutics.*

VERANUS ALVA MOORE, B.S., M.D., *Professor of Comparative Pathology and Bacteriology, and of Meat Inspection.*

SIMON HENRY GAGE, B.S., *Professor of Microscopy, Histology and Embryology.*

GRANT SHERMAN HOPKINS, D.Sc., *Assistant Professor of Veterinary Anatomy and Anatomical Methods.*

BENJAMIN FREEMAN KINGSBURY, A.B., Ph.D., *Instructor in Microscopy, Histology and Embryology.*

RAYMOND CLINTON REED, Ph.B., *Instructor in Comparative Pathology and Bacteriology.*

EDWARD LOCKHART MOORE, B.S., *Demonstrator of Veterinary Anatomy.*

——— ———, *Demonstrator of Veterinary Anatomy.*

PROFESSORS AND TEACHERS IN CORNELL UNIVERSITY WHO FURNISH INSTRUCTION TO VETERINARY STUDENTS.

GEORGE CHAPMAN CALDWELL, B.S., Ph.D., *Professor of Agricultural, Analytical and Physiological Chemistry.*

ISAAC PHILLIPS ROBERTS, M.Agr., *Professor of Agriculture.*

LEWIS MUNROE DENNIS, Ph.B., B.S., *Associate Professor of Analytical Chemistry.*

HENRY HIRAM WING, M.S., *Assistant Professor of Animal Industry and Dairy Husbandry.*

FREDERICK LAWRENCE KORTRIGHT, D.Sc., *Instructor in Chemistry.*

FRED DOUGLASS SMITH, B.S., *Instructor in Analytical Chemistry.*

DARWIN ABBOT MORTON, B.S., *Instructor in Organic Chemistry.*

BLIN SILL CUSHMAN, B.S., *Instructor in Quantitative Chemical Analysis.*

VETERINARY COLLEGE DIRECTORY.

The President of the University, JACOB G. SCHURMAN, 2 Morrill Hall.

The Dean of the Veterinary College, *Professor* JAMES LAW, Room 2, s. e. corner, 1st floor of the Veterinary College,

Professor WALTER L. WILLIAMS, Room 3, n. w. corner, 1st floor.

Professor PIERRE A. FISH, Room 11, n. w. corner, 2d floor.

Professor GRANT S. HOPKINS, Room 12, n. e. corner, 2d floor.

Professor VERANUS A. MOORE, Room 13, s. w. corner, 3d floor.

Professor SIMON H. GAGE, Room 14, s. e. corner, 3d floor.

Instructor B. F. KINGSBURY, Room 18, n. e. corner, 3d floor.

Instructor RAYMOND C. REED, Room 17, n. w. corner, 3d floor.

Veterinary College Clerk, CHARLES EZRA CORNELL, Room 1, s. w. corner, 1st floor.

The Stud Groom, MR. GEORGE I. BOVIER, Cottage east of Main Building (see plan, p. 7).

FOUNDATION.

The New York State Veterinary College was established by act of the State Legislature in 1894. "There is hereby established a State Veterinary College at Cornell University," Laws of New York 1894, p. 307. By action of the Board of Trustees of Cornell University, June 10, 1894, the location of the College upon the University Campus was authorized. It was further enacted that while the University does not undertake any financial responsibility for the buildings, equipment or maintenance of the College, it does consent to furnish instruction upon such subjects as are or shall be in its curriculum upon such terms as may be deemed equitable.

By further acts of the Legislature provision for the buildings, equipment and maintenance of the College were made and finally in 1897, by "An act to provide for the administration of the State Veterinary College, established by chapter 153 of the laws of 1894," it was enacted that the Trustees of Cornell University should be entrusted with the administration. (For officers of administration, see p. 3).

OBJECTS OF THE INSTITUTION.

As stated in the act to provide for the administration of the State Veterinary College: "*The State Veterinary College, established by chapter 153 of the laws of 1894, shall be known as the New York State Veterinary College. The object of said veterinary college shall be: to conduct investigations as to the nature, prevention and cure of all diseases of animals, including such as are communicable to man and such as cause epizootics among live stock; to investigate the economical questions which will contribute to the more profitable breeding, rearing and utilization of animals; to produce reliable standard preparations of toxins, antitoxins and other products to be used in the diagnosis, prevention and cure of diseases and in the conducting of sanitary work by approved modern methods; and to give instruction in the normal structure and function of the animal body, in the pathology, prevention and treatment of animal diseases, and in all matters pertaining to sanitary science as applied to live stock and correlatively to the human family.*"

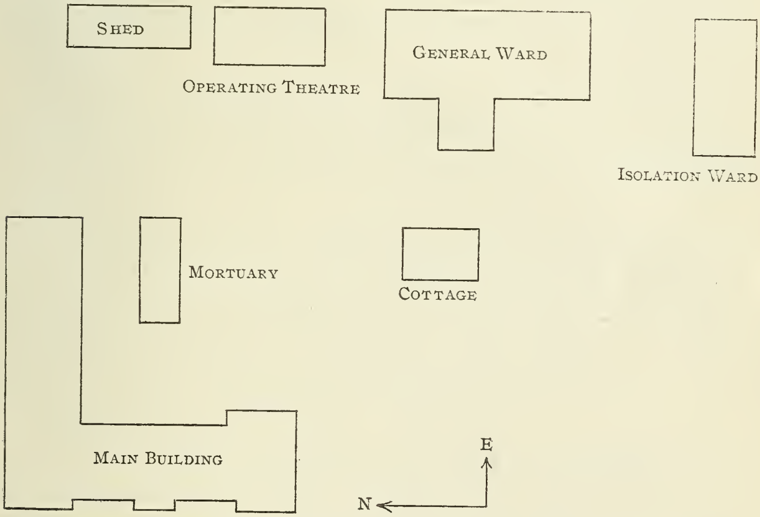
The New York State Veterinary College was therefore founded to raise the standard of veterinary instruction and investigation to the level of the most recent advances in biology and medicine. The number of farm animals in this State (9,450,000), and their value ($131,200,000), with a yearly product, in milk alone, of over 5,000,000,000 gallons, give some idea of the great interest at stake in the matter of live stock. For the United States a value in live stock of, approximately, $2,000,000,000, and a yearly sale, in Chicago alone, of $250,000,000 worth, bespeak the need of all that learning and skill can do for the fostering of this great industry. Another consideration is that the normal permanent fertilization of the soil is dependent on the live stock kept, and that where there is a deficiency of animals, the productiveness of the land is steadily exhausted ; so that the health and improvement of animals and the fostering of the animal industry, lie at the very foundation of our national wealth. Another, and no less potent argument, for the highest standard of veterinary education, is its influence on the health of the human race. With a long list of communicable diseases, which are common to man and beast, and with the most fatal of all human maladies — tuberculosis — also the most prevalent affection in our farm herds in many districts, it is to the last degree important that measures for the extinction of such contagion in our live stock should receive the best attention of the most highly trained experts.

To justify the liberality of the State in creating this seat of learning, it will be the aim of the College to thoroughly train a class of veterinarians for dealing with all diseases and defects that depreciate the value of our live stock, and with the causes which give rise to them, to recognize and suppress animal plagues, which rob the stock owner of his profits, and cause widespread ruin ; to protect our flocks and herds against pestilences of foreign origin, and to protect human health and life against diseases of animal origin. It will further aim, so far as it has the means and opportunity, at establishing a center of investigation, looking towards such improvements in the breeding, care and management of animals as may enhance their market value and make returns more speedy and profitable ; towards discoveries in therapeutics, and the immunization of animals and men from contagion ; and towards the production of organic compounds to be employed in diagnosis, treatment and immunizing. So much has been recently discovered in these directions, and present knowledge points so unmistakably to coming discovery, that to neglect this field at the present time would be decidedly reprehensible. Apart from discovery, the mere production of reliable articles of these organic products which are coming into increasing demand by the State and private practitioner, for prevention, diagnosis and treatment, is an object not to be lightly set aside. The combination in one institution of educational facilities with scientific investigation, and the production of the organic extracts to be employed in modern medical methods, is a feature calculated to insure the best work in all departments, and the most exceptional advantages for the diligent student.

LOCATION AND BUILDINGS.

The New York State Veterinary College is located at Ithaca, on the campus of Cornell University, fronting on East Avenue, and facing the University buildings. Electric cars on East Avenue convey students and visitors to any part of the city. Ithaca, with its population of 12,000, is situated at the head of Cayuga Lake, 262 miles distant from New York City, and on the lines of the Delaware, Lackawanna and Western, the Lehigh Valley, and the Elmira, Cortland and Northern railroads. The University grounds are half a mile from the business center of the city and 400 feet higher, commanding a view of 30 miles of valley and lake. They comprise 270 acres, of which 140 are used by the department of agriculture, and furnish home facilities for clinics and zoötechnics. On the campus of 80 acres are 36 professors' houses, 5 fraternity houses, and over 30 University and College buildings.

The BUILDINGS for the State Veterinary College are seven in number, as follows :



The MAIN BUILDING, 142 feet by 42 feet and three stories high, overlooks East Avenue and an intervening park of 220 feet by 300 feet. The walls are of dull yellowish buff pressed brick, on a base of Gouverneur marble ; window and door facings of Indiana limestone, and terra cotta ornamentation. On the first floor are the museum and rooms of the dean and the professor of surgery and obstetrics, and business office. The second floor is devoted to the upper part of the museum, a lecture room, reading room, library and rooms of professors. The third floor is devoted to laboratories of histology, pathology and bacteriology and the necessary subsidiary offices.

Connected with the main building and forming its EAST WING is a structure of 90 feet by 40, and one story high. This contains the anatomical laboratories, and the lecture room of anatomy, medicine and surgery. Its floors are of impermeable granolithic cement, the walls lined by enamelled white brick, and the ceilings covered with sheet steel.

The second extension from the main building is the BOILER AND ENGINE ROOM, where power is generated for heating and ventilation.

The SURGICAL OPERATING THEATRE is a separate building in the rear of the main building, and is furnished with room for forge, instruments, water heater, etc. The lighting and equipment, and the facilities for demonstration, have been specially attended to.

The GENERAL PATIENT'S WARD, 100 feet by 31, is furnished with box and other stalls, heating apparatus, baths and all necessary appliances. The floor is of impermeable granolithic cement, and the ceilings of painted sheet steel. There is also a fodder room of 20 by 30 feet.

The ISOLATION WARD 54 feet by 15, has its stalls absolutely separated from one another and each opening by its own outer door. It has the usual granolithic floor, with walls of vitrified brick and painted sheet steel ceilings.

The MORTUARY BUILDING has an impermeable floor, walls of enamelled brick and painted steel plate ceilings, and is fitted with every convenience for conducting post mortem examinations and preparing pathological specimens.

These, with a cottage for the stud groom, complete the list of State buildings erected for the Veterinary College, The equipment has been made very complete both for educational uses and original research.

For a more detailed account of the equipment and the facilities for instruction see "Departments, methods and facilities," pp. 17–31.

ADMISSION TO THE NEW YORK STATE VETERINARY COLLEGE.

1. Admission upon Diploma or Certificate. Applicants possessing either of the following are admitted without examination :

(a) A baccalaureate degree from the academic department of a college or university of recognized standing.

(b) An academic diploma granted by the Regents of the University of the State of New York.

(c) A Regents' Veterinary Student Certificate representing at least 48 academic counts (For full information concerning the education necessary to obtain the Regents' academic diploma or Veterinary Students' Certificate or for the acceptance as equivalents of work done in the academies or high schools of other states, address Examination Department, University of the State of New York, Albany, N. Y.)

See also in Appendix B, the legal requirements for the preliminary and professional education and examinations necessary for admission to the practice of Veterinary Medicine in the State of New York.

2. Admission upon Examination. Those not possessing either of the above diplomas or certificates are required to pass satisfactory examinations in nine subjects as follows : —

1. English. 2. Geography. 3. Physiology and Hygiene. 4. American History. 5. Plane Geometry. 6. Algebra and any three of the following :

Elementary French. Entrance Greek. Elementary German. Entrance Latin. Vergil, Cicero and Composition. An amount of any group of the following making the equivalent of two years of high school work : Physics, Botany, Geology, Vertebrate Zoology, Invertebrate Zoology, Advanced French, Advanced German.

The statements below are designed to give an idea of what is expected under each subject :

1. In *English.* One hour of examination is assigned to answering questions upon the books marked *A.* Two more hours are occupied with writing three essays (250 words each) upon subjects taken from the books marked *B.*

The books prescribed for 1897 : *A.* Shakespeare, As You Like It ; De Foe, History of the Plague in London ; Irving, Tales of a Traveller ; Hawthorne, Twice Told Tales ; Longfellow, Evangeline ; George Eliot, Silas Marner. *B.* Shakespeare, the Merchant of Venice ; Burke, Conciliation with America ; Scott, Marmion ; Macaulay, Life of Samuel Johnson.

For 1898 : *A.* Milton, Paradise Lost, Books i and ii ; Pope, Iliad, Books i and xxii ; The Sir Roger de Coverley papers in the Spectator ; Goldsmith, The Vicar of Wakefield ; Coleridge, The Ancient Mariner ; Southey, Life of Nelson ; Carlyle, Essay on Burns ; Lowell, The Vision of Sir Launfal; Hawthorne, The House of the Seven Gables. *B.* Shakespeare, Macbeth ; Burke, Conciliation with America ; De Quincey, Flight of a Tartar Tribe ; Tennyson, The Princess.

For 1899 : *A.* Dryden, Palamon and Arcite ; Pope, Iliad, Books i, vi, xxii, xxvi ; The Sir Roger deCoverley Papers in the Spectator ; Goldsmith, The Vicar of Wakefield ; Coleridge, The Ancient Mariner ; DeQuincey, The Flight of a Tartar Tribe ; Cooper, The Last of the Mohicans ; Lowell, The Vision of Sir Launfal ; Hawthorne, the House of Seven Gables. *B.* Shakespeare, Macbeth ; Milton, Paradise Lost, Books i and ii ; Burke, Conciliation with America ; Carlyle, Essay on Burns.

For 1900 : *A.* Dryden, Palamon and Arcite ; Pope, Iliad, Books i, vi, xxii, xxiv ; The Sir Roger de Coverley Papers in the Spectator ; Goldsmith, the Vicar of Wakefield ; Scott, Ivanhoe ; De Quincey, The Flight of a Tartar Tribe ; Cooper, The Last of the Mohicans ; Tennyson, The Princess ; Lowell, The Vision of Sir Launfal. *B.* Shakespeare, Macbeth; Milton, Paradise Lost, Books i and ii; Burke, Conciliation with America; Macaulay, Essays on Milton and on Addison.

The object of the examination is to test the candidate's ability to express himself clearly and correctly; also, to test his familiarity with the works prescribed.

No candidate markedly deficient in English will be admitted to any course in the University.

2. *Geography;* political and physical; as much as is contained in the larger school geographies, though more careful treatises such as those of Longmans and of Keith Johnson are recommended.

3. In *Physiology and Hygiene;* the equivalent of Martin's "The Human Body" (briefer course), and of Wilder's "Health Notes" and "Emergencies." The treatises of Hutchinson, Huxley, Jenkins, and Walker are accepted as equivalents of Martin.

4. In *American History;* Montgomery's "Leading Facts in American History," or its equivalent. It is expected that the study of American History will be such as to show the development and origin of the institutions of our own country; that it will, therefore, include the colonial beginnings; and that it will deal with the period of discovery and early settlement sufficiently to show the relations of peoples on the American continent, and the meaning of the struggle for mastery.

(*The following requirements in Mathematics, Latin, French and German are the same as those agreed upon by the Conference of representatives from Columbia, Harvard, Pennsylvania, Princeton, Yale, and Cornell University*).

5. *Plane Geometry:* Including the solution of simple original exercises, numerical problems, and questions on the metric system; as much as is contained in the larger American and English text-books.

6. *Algebra.*—Factors, common divisors and multiples, fractions, equations of the first degree with one or more unknown quantities, involution, including the binomial theorem for positive entire exponents, evolution, the doctrine of exponents, radicals and equations involving radicals, quadratic equations of one or two unknown quantities and equations solved like quadratics, ratio and proportion, and putting problems into equations, and including radicals; as much as is contained in the larger American and English text-books.

[In the fundamental operations of Algebra, such as multiplication and division, the management of brackets, the solving of numerical and literal equations of the first and second degrees, the combining and simplifying of fractions and radicals, the interpretation and use of negative quantities and of 0 and ∞, the putting of problems into equations — the student should have distinct notions of the meaning and the reason of all that he does, and be able to state them clearly in his own language; he should also be able to perform all these operations, even when somewhat complex, with rapidity, accuracy, and neatness; and to solve practical problems readily and completely. In his preparatory study he is advised to solve a great many problems, and to state and explain the reasons for the steps taken.

In Geometry he should learn the definitions accurately, whether in the language of the text-book or not, and in proving a theorem or solving a problem he should be able to prove every statement made, going back step by step till he rests upon the primary definitions and axioms. He should be able to apply the principles of geometry to practical and numerical examples, to construct his diagrams readily with rule and compass, and to find for himself the solutions of simple problems and the demonstrations of simple theorems. To cultivate this power of origination, he should always, before reading the solution or proof given in his text-book, try to find one for himself, making use, if necessary, of his author's diagram ; and if, successful, he should compare critically his own work with his author's, and see wherein either is the better. Besides oral recitation, he is advised to write out his demonstrations, having regard both to the matter and to the form of his statements ; and when written he should carefully study them to make sure, first, that he has a complete chain of argument, and secondly, that it is so arranged that without defect or redundance one step follows as a logical consequence of another.]

Elementary French : (a) The translation at sight of ordinary nineteenth century prose. It is important that the passages set be rendered into clear and idiomatic English. It is believed that the power of translating at sight ordinary nineteenth century prose can be acquired by reading not less than four hundred duodecimo pages from the works of at least three different authors. Not more than one-half of this amount ought to be from works of fiction. This number of pages is to include not only prepared work, but all sight reading done in class. (b) The translation from English into French of sentences or of a short connected passage to test the candidate's familiarity with elementary grammar. Elementary grammar is understood to include the conjugations of regular verbs, of the more frequent irregular verbs, such as aller, envoyer, tenir, pouvoir, voir, vouloir, dire, savoir, faire, and those belonging to the classes represented by ouvrir, dormir, connaitre, conduire and craindre ; the forms and positions of personal pronouns, the uses of other pronouns and of possessive, demonstrative, and interrogative adjectives ; the inflection of nouns and adjectives ; the inflection of nouns and adjectives for gender and number, except rare cases ; the uses of articles, and the partitive constructions.

Pronunciation should be carefully taught and pupils be trained to some extent to hear and understand spoken French. The writing of French from dictation is recommended as a useful exercise.

For examination no specific authors or works are designated. An examination in pronunciation and the writing of French from dictation will be included. All applicants for admission are required to present a statement from their teacher mentioning the text-books used and the authors read, including the number of pages translated from French into English and English into French.

Elementary German: (a) The rudiments of grammar, and especially these topics: The declension of articles, adjectives, pronouns, and such nouns as are readily classified; the conjugation of weak and of the more usual strong verbs; the commoner prepositions; the simpler uses of the modal auxiliaries; the elementary rules of syntax and word order. The proficiency of the applicant may be tested by questions on the above topics and by the translation into German of simple English sentences. (b) Translation at sight of a passage of easy prose containing no rare words. It is believed that the requisite facility can be acquired by reading not less than two hundred duodecimo pages of simple German.

Practice in pronunciation, in writing German from dictation, and in the use of simple German phrases in the classroom is recommended.

For examination no specific authors or works are designated. An examination in pronunciation and the writing of German from dictation may be included. All applicants for admission are required to present a statement from their teacher mentioning the text-books used and the authors read, including the number of pages translated from German into English, and English into German.

1. In *Greek:* Candidates are examined on (1) Grammar. A thorough knowledge of the common forms, idioms and constructions and of the general grammatical principles of Attic prose Greek, to be tested by an examination on a prescribed portion of Xenophon (for the next five years Xenophon's Anabasis, Books I and II). The test is to consist in part of questions, in part of simple sentences set for translation into Greek; it may include also translation from Greek into English. (2) Attic prose at sight. Ability to translate at sight a passage adapted to the proficiency of those who have read not less than 130 Teubner pages of Attic prose. The candidate is expected to show in his translation accurate knowledge of the forms and structure of the language, and an intelligent comprehension of the whole passage. (3) Homer. Ability to translate a passage from some prescribed portion of Homeric poems (for the next three years, Iliad, Book I and Book II, vv. 1-493). and to answer questions designed to test the candidate's understanding of the passage, as well as questions upon poetic forms, construction, and prosody.

2. In *Latin:* candidates are examined (1) in the following authors: with questions on subject-matter, constructions, and the formation and inflection of words; Vergil, six books of the Æneid, with the prosody; Cicero, six Orations, including the four against Catiline; the translation at sight of passages adapted to the proficiency of candidates who have studied Latin in a systematic course of at least five lessons a week for

three years, the passages to be selected from Nepos or Cæsar; and (2) Latin Composition based on Bennett's or Jones's Latin Composition.

Advanced French: (a) The translation at sight of standard French. It is important that the passages set be rendered into clear and idiomatic English. It is believed that the necessary proficiency in translation at sight can be acquired by reading, in addition to the elementary work, not less than six hundred duodecimo pages of prose and verse from the writings of at least four standard authors. A considerable part of the amount read should be carefully translated into idiomatic English. (b) The translation into French of a connected passage of English prose. Candidates will be expected to show a thorough knowledge of accidence and familiarity with the essentials of French syntax, especially the uses of tenses, moods, prepositions and conjunctions. Careful attention should be paid to pronunciation and the uses of spoken French.

For examination no specific authors or works are designated. An examination in pronunciation and the writing of French from dictation will be included. All applicants for admission are required to present a statement from their teacher, mentioning the text-books used and the authors read, including the number of pages translated from French into English and English into French.

Advanced German: (a) More advanced grammar. In addition to a thorough knowledge of accidence, of the elements of word-formation. and of the principle uses of prepositions and conjunctions, the candidate must be familiar with the essentials of German syntax, and particularly with the uses of modal auxiliaries and the subjunctive and infinitive moods. The proficiency of the applicant may be tested by questions on these topics, and by the translation into German of easy connected English prose. (b) Translation at sight of ordinary German. It is believed that the requisite facility can be acquired by reading, in addition to the amount mentioned under elementary German, at least five hundred pages of classical and contemporary prose and poetry. It is recommended that not less than one-half of this reading be selected from the works of Lessing, Schiller, and Goethe.

It is recommended that the candidate acquire the ability to follow a recitation conducted in German and to answer in that language questions asked by the instructor.

For examination no specific authors or works are designated. An examination in pronunciation and the writing of German from dictation may be included. All applicants for admission are required to present a statement from their teacher, mentioning the text-books used and the authors read, including the number of pages translated from German into English and English into German.

Applicants taking entrance examinations may be admitted conditionally, notwithstanding they may be deficient in some subjects (other than English), in case such deficiencies are not so considerable as, in the judgment of the Faculty, to disqualify them from carrying on the work of the first year. All such conditions must be removed before the students will be allowed to register as a member of the second year class. (See appendix B).

TIME AND CONDITIONS OF THE EXAMINATIONS.

The examinations are held in the following order. The dates may be found in the calendar, 2nd page of cover.

First Day.—Geography, 10:30 A. M.; Plane Geometry, 3 P. M.

Second Day.—American History, 8 A. M.; Physiology, 10:30, A. M.; Elementary Algebra, 3 P. M.

Third Day.—Solid Geometry, 8 A. M.; Elementary and Advanced German and Greek, 3 P. M.

Fourth Day.—English 8 A. M.; Latin and Trigonometry, 3 P. M.

Fifth Day.—Elementary and Advanced French, 8 A. M.; Advanced Algebra, 3 P. M.

Candidates for admission to examination must apply at the office of the Registrar, (9A, Morrill Hall) for permits. They will receive from him directions as to the place for holding the examination.

Examination for advanced standing will be held in the Veterinary College building commencing Friday, June 11 or Tuesday, Sept 14, 1897, and Friday, June 10 or Tuesday, Sept. 13, 1898.

ADMISSION TO ADVANCED STANDING.—Applicants for admission to advanced standing as members of the 2d or 3d year class must present the necessary educational qualifications for admission to the first year class (see p. 8) and must pass a satisfactory examination in all the work gone over, or offer satisfactory certificates of the completion of such work in other veterinary schools whose entrance requirements and courses of study are equivalent to those of this college. No person will be admitted to any advanced class except at the beginning of the college year in September.

Applicants for advanced standing from other veterinary colleges must send or present letters of honorable dismissal, and furnish the Director, Dr. James Law, with a catalog containing the courses of instruction in the institution from which they come with a duly certified statement of the studies pursued and their proficiency therein, and also a statement of the entrance requirements with the rank gained. To avoid delay these credentials should be forwarded at an early date in order that the status of applicants may be determined and information furnished concerning the class to which they are likely to be admitted.

Graduates of veterinary colleges whose requirements for graduation are not equal to those of the New York State Veterinary College may be admitted provisionally upon such terms as the faculty may deem equitable in each case, regard being had to the applicant's previous course of study and attainments. In this connection, attention is called to the legal requirements of academic and professional education for the practice of Veterinary Medicine in the State of New York. (See Appendix B.)

ADMISSION TO GRADUATE WORK.—The ample facilities for graduate work in the New York State Veterinary College, with allied departments in Cornell University, are open to graduates of this institution and of other Veterinary Colleges whose entrance requirements and undergraduate courses are equivalent. (See pp. 8, 15).

RESIDENCE AND REGISTRATION.

Residence in Ithaca is required of all students. For leave of absence during term time application should be made to the Director, Professor Law.

Registration—At the beginning of each term (see calendar for exact day and date) the student must register with the University Registrar, Room 9 A, Morrill Hall. After registering with the University Registrar, he must, on the same day, register with the Secretary of the Faculty, Dr. Fish, Room, 11, 2d floor, of the Veterinary College. Upon registering with the Secretary of the Faculty, a slip will be given each student indicating his studies for the term, and the time and place for the same.

REQUIREMENTS FOR GRADUATION.

In order to receive the degree of Doctor of Veterinary Medicine (D.V.M.) the candidate must satisfy all the entrance requirements (pp. 8, 34) and successfully pursue the courses named in the schedule of studies given below.

The thesis required in the last year (see schedule) is designed to give the student opportunity to investigate some subject in which he has become particularly interested, and to give him training in presenting the results of the investigation in proper literary form.

A final examination upon all subjects pursued during the entire course will be given during the last week of the third term to all candidates for degrees. (In 1897-98 this examination will occur Tuesday and Wednesday June 7, 8, 1898).

SCHEDULE OF THE COURSES LEADING TO THE DEGREE OF DOCTOR OF VETERINARY MEDICINE.

First Year.	1st Term.	2d Term.	3d Term.
Inorganic Chemistry	3	3	3
Anatomy	2	2	2
Dissection	4	4	4
Microscopy and Histology	2	2	–
Laboratory	3	3	–
Embryology	–	–	3

Laboratory	–	–	2
Comparative Physiology	1	1	1
Breeds and Breeding	2	2	2

Second Year.	1st Term.	2d Term.	3d Term.
Organic and Physiological Chemistry	2	2	2
Anatomy	1	1	1
Dissection	4	4	4
Comparative Physiology	1	1	–
Laboratory	–	2	–
Pharmacology	1	1	1
Pharmacy	2	–	–
Therapeutics	–	–	1
Medicine	3	3	3
Surgery	5	5	5
Sanitary Science	2	2	2
Bacteriology	1	1	1
Laboratory	2	2	2
Clinics, medicine and surgery	3	3	3

Third Year.	1st Term.	2d Term.	3d Term.
Medicine	3	3	3
Clinics, medicine and surgery	6	6	6
Surgery	5	5	5
Toxicology	–	2	–
Sanitary Science	2	2	2
Pathology	2	1	–
Laboratory	–	1	–
Meat Inspection	–	–	1
Laboratory	–	–	1
Research and Thesis	3	3	3

DEPARTMENTS, METHODS AND FACILITIES.

In addition to the departments of the Veterinary College proper, the resources of the entire university are practically at the disposal of the college by the action of the board of trustees at the time when authorization was given for the location of the college on the campus of the Cornell University (p. 5, under Foundation). Among the facilities of the university of especial value to the veterinary college may be mentioned the museums of Vertebrate and Invertebrate Zoölogy including Entomology, of Agriculture, of Botany and of Geology. The magnificent University Library is likewise as freely open to veterinary college students as to other university students.

The Departments with the special equipment facilities and methods are given in the order in which the subjects are pursued in the course.

The Courses Required for Graduation are given in the schedule of studies, p. 15, but the additional courses offered by the various departments are thought to be of especial value to veterinary students and may be elected by them whenever they have satisfied the requirements.

In all Laboratory Courses and clinics two and one-half (2½) actual hours of laboratory practice are required for each hour of credit; e. g., for a three hour laboratory course, 7½ actual hours of laboratory work are required each week.

CHEMISTRY.

The instruction in chemistry is given in the university chemical building, Morse Hall, (plate at the end). This building is used solely for chemistry and is fully equipped with modern apparatus and material. The laboratories furnish the most ample accommodation for practical work, and the lectures are fully illustrated by specimens, demonstrations and lantern views. The chemical library, in the building and accessible to students, contains complete sets of all important journals, and is very fully supplied with works of reference and standard books on chemistry and allied subjects.

For a full account of the department with its 37 courses one may consult the University Register or the special announcement of the chemical department (see 3d page of cover).

COURSES.

These are the courses pursued by veterinary students and must be taken in the order here indicated.

1. Elementary, general inorganic chemistry. Three hours weekly throughout the year. This consists of one lecture, one recitation and one hour of laboratory work. Professor CALDWELL and Instructor KORTRIGHT.

20. Organic chemistry. Fall term. Two hours. Instructor MORTON.

45. Physiological chemistry. Winter and spring terms. Two hours. Professor CALDWELL.

ANATOMY.

The instruction in anatomy is by lectures, recitations and laboratory work, the latter being by far the most important. The objects of the lectures are to present facts of general morphology as related to the horse and other domestic animals; to direct attention, as far as possible, to the correlation of structure and function of the various organs of the body and to emphasize the anatomical relations of those parts most subject to surgical operations. The main reliance, however, is placed upon the work done in the laboratory. Thorough practical knowledge of anatomy can be acquired in no other way, and every student will be required to dissect all the parts of the horse, or ox, and such other of the domestic animals as may prove most expedient, before taking his final examinations.

The courses in anatomy extend through two years. The first year is devoted to the study of the bones, joints, muscles and certain of the viscera; the second year, to the vascular and nervous systems and the organs of special sense.

In the study of the osseous and muscular systems, the skeletons in the laboratory, and the Auzoux models afford valuable assistance. In the museum there are accumulating series of specimens which illustrate, in a typical manner, some of the more important anatomical features of the various domestic animals.

The department of anatomy occupies the whole of the east wing—a structure 90 feet by 40 feet and one story in height. The floors are of impermeable granolithic cement; the walls are lined by enameled white brick and the ceilings covered with sheet steel. The main laboratory is 54 feet by 40 and 22 feet in height. It is well lighted by skylights and by electricity. It is heated by steam and hot air. The ventilation is nearly perfect, fresh air being forced into the room by large fans situated in the basement. The entire volume of air in the laboratory can be changed every 5 minutes without creating any perceptible draft. This constant supply of abundance of pure air is an especially important feature in a dissecting room. The laboratory is supplied with mounted skeletons and other osteological material, a large refrigerator, set of Fairbanks scales, injecting and other laboratory apparatus.

In addition to the general libraries of the University and of the College, there are upon the book shelves, in the laboratory, dictionaries, both English and medical, a complete set of the Reference Handbook of the Medical Sciences, standard text-books of anatomy, physiology, physics, etc., for the special use of the students in the laboratory, as books of reference.

Connected with the main laboratory is a smaller one, 22 feet by 22, which is used as a preparation room and as a private laboratory.

Opening into the laboratories is a locker room, containing lockers for the accommodation of 150 students, and off from this room are the lavatories, etc.

The city and surrounding country furnish any quantity of anatomical material, and in almost endless variety ; horse, ox, sheep and swine, dog, cat, rabbit and guinea-pig, both adult and in all stages of fetal development.

The facilities for the study of anatomy are limited only by lack of preparation and time, on the part of the student.

After finishing the required work, students are encouraged to undertake some piece of original work, in either surgical or comparative anatomy.

COURSES.

Of the following courses, the two first are required of the veterinary students ; the others are general courses :

1. General and descriptive veterinary anatomy. Fall, winter and spring. Six hours. Two lectures and laboratory work. Dr. HOPKINS and demonstrators.

2. Descriptive veterinary anatomy. Fall, winter and spring. Five hours. One lecture and laboratory work. Dr. HOPKINS and demonstrators.

This course must be preceded by course 1.

3. Anatomical methods and gross anatomy. Fall term. Three hours. One lecture and laboratory work. Dr. HOPKINS.

4. Advanced anatomy. Winter term. Three hours. One lecture and laboratory work. Dr. HOPKINS.

Course 4 must be preceded by course 3 or its equivalent.

5. Human anatomy. Laboratory work throughout the year. Dr. HOPKINS.

This couse is open to those who have had one or more of the preceding courses.

6. Research and thesis. Three hours throughout the year. Dr. HOPKINS.

COMPARATIVE PHYSIOLOGY.

It is the aim of this department to select from a wide field of interesting topics, those which will be of greatest use to the student, in preparation for a more complete understanding of *normal* functions, as distinguished from the pathological changes so frequently encountered in the practice of human and veterinary medicine.

The fact that it is essential to know the natural before undertaking the diagnosis of unnatural conditions is thoroughly emphasized.

The lectures are supplemented as fully as possible by diagrams and preparations, and when occasion demands painless experiments are performed upon lower animals.

In addition to the didactic instruction a course in the laboratory is provided, which is intended to largely supplement and extend the lecture courses. A beginning has already been made in securing desirable apparatus, and as facilities increase additional apparatus will be procured.

The courses are conducted as comprehensively as possible and will be found no less useful for those contemplating the study of human medicine than for those pursuing the regular veterinary course.

COURSES.

1. Required of the first year veterinary students, and treats of the digestive functions, circulation, respiration, and excretion. The work given in this course precedes quite logically that of Pharmacology. Lectures, one hour each week through the year. Dr. FISH.

2. The functions of the muscular and nervous systems and reproduction are considered in this course, which is a direct continuation of course one. Lectures one hour each week through the fall and winter terms. Dr. FISH.

3. Practical work in the laboratory. Each student is required to prepare extracts of the various digestive juices and test their actions upon various kinds of food stuffs. A short course in urinalysis is also required in order that students may familiarize themselves with some of the more common but important changes occurring during health and disease. Experiments in blood pressure and upon the muscular and nervous systems will be carried on as time and opportunity permit. Winter term. Two hours. Dr. FISH.

4. Research and Thesis. Three hours throughout the year. Dr. FISH.

MICROSCOPY, HISTOLOGY AND EMBRYOLOGY.

As indicated by the following courses, this department offers elementary and advanced instruction in the theory and use of the microscope and its accessories, in photo-micrography, in vertebrate histology and vertebrate embryology ; and opportunities for research in all of these subjects.

The rooms for the use of this department are on the third floor, and as shown by the plan given in the plates at the end, they are ample and almost perfectly lighted. They consist of a large general laboratory, a research laboratory and the private laboratory of the professor in charge where special demonstrations of difficult subjects are given to small groups of students.

The material equipment consists of a good supply of modern microscopes each one of which is fitted with a low and medium power dry objective and a 2 mm. homogeneous immersion objective. Camera lucidas, polariscopes, micro-spectroscopes, photo-micrographic cameras, and other special apparatus are in sufficient numbers to give each student opportunity for personally learning to use them, and for applying them to any special study in which they are called for. The general and research laboratories are large, and are equipped with microtomes, incubators, aquariums, etc. The collection of histological and embryological specimens is extensive and constantly increasing. Full sets of typical specimens are available for study and comparison by the students,

The aim of the department is to bring the student into direct contact with the truths of nature, and hence, while there are lectures to give broad and general views of the subjects and of their relations with the rest of knowledge, there is a large amount of laboratory work in which the facts are learned at first hand, and the methods and manipulations necessary for acquiring the facts are practiced by each student. It is recognized that less ground can be covered in a given time in this way, but it is believed, and experience has confirmed the belief, that the intellectual independence and the power to acquire knowledge direct from nature which is gained by this personal work, is of far higher value than the facts and theories that might be learned in the same time from books and lectures alone, or from specimens prepared by some other individual.

This lake region with its rich and varied fauna is especially favorable for investigations in the histology and embryology of all the main groups of vertebrates and the proximity of the abattoirs in the city makes it possible to obtain abundant material for the study of the development of the sheep, cow and pig. The college clinic and the department of anatomy supply an abundance of material for the embryology of the cat and dog so that the opportunities for research upon the development of the domestic animals are excellent. Every encouragement is given for the fullest utilization of these opportunities by students in the preparation of theses and for special investigations.

COURSES.

1. The Microscope and Microscopical Methods. First half of fall term. Two hours. Two lectures and three hours of laboratory work. This course forms the basis for all the subsequent work given by the department. It is also designed to give a knowledge of the theory and use of the microscope and its accessories which would be advantageous for the work of any department where the microscope is employed. Professor GAGE and Instructor KINGSBURY.

This course counts for two hours for the term, although the work must all be done in the first five weeks.

2. Vertebrate Histology. Last half of fall term (3 hours) and the winter term (5 hours). Eight hours. Two lectures and three hours laboratory work. In this course are given the elements of the fine anatomy of man and of the domestic animals. It includes also methods of

histologic investigation and demonstration. Professor GAGE and Instructor KINGSBURY.

This is a continuation of course 1 and is open only to those who have taken course 1, and have taken or are taking courses in anatomy and physiology.

3. Vertebrate Embryology. Spring term. Five hours. Three lectures and two hours of laboratory work. This course deals with the elements and methods of embryology in man, the domestic animals and the amphibia. Professor GAGE and Instructor KINGSBURY.

Course 3 is open only to those who have pursued courses 1 and 2. (The lectures alone may be attended by those who have taken courses 1 and 2 in Physiology and Vertebrate Zoology).

4. Research in Histology and Embryology. Laboratory work with lectures throughout the year. This course is designed for those preparing theses for the baccalaureate or advanced degrees and for those wishing to undertake special investigations in histology and embryology. Professor GAGE and Instructor KINGSBURY.

Course 4 is open only to those who have taken courses 1, 2 and 3, or their equivalent in some other University. Drawing (course 9, in Mechanical Engineering, or its equivalent) and a reading knowledge of French and German are indispensable for the most successful work in this course.

Subjects for baccalaureate theses should be decided upon if possible during the spring term of the junior year so that material in suitable stages of development and physiological activity may be prepared.

5. Structure and Physiology of the Cell. Spring term. Two hours. Laboratory work with lectures. This course is designed for advanced students who wish to investigate cytological problems. Dr. KINGSBURY.

6. Advanced Microscopy. Spring term. Two hours. Laboratory work with lectures. In this course special instruction will be given in the theory and use of the more difficult and important accessories of the microscope, *e. g.*, the micro-spectroscope, the micro-polariscope, the apertometer, the photo-micrographic camera and the projection microscope. Professor GAGE.

This course is open only to those who have taken course 1, and if photo-micrography is desired, an elementary knowledge of photography like that given in course 9, Department of Physics, is necessary.

7. Seminary. There will be a meeting of the department staff and students engaged in research, once in two weeks, for conference and report upon special investigations. (See Veterinary College Seminary, p. 31).

NOTE.—For the work of this department, the student will find a knowledge of Latin and Greek of the greatest advantage. A year's study of Latin, three to five recitations per week, and of Greek, Goodell's Greek in English, or Coy's Greek for beginners, would represent the minimum amount needed. For all courses, the ability to draw well free hand, and a good reading knowledge of French and German are desirable, and for research work almost indispensable.

THE COLLEGE OF AGRICULTURE—BREEDS AND BREEDING.

The College of Agriculture comprises the Departments of General Agriculture ; Animal Industry and Dairy Husbandry ; Horticulture and Pomology ; Agricultural Chemistry ; General and Economic Entomology and the Agricultural Experiment Station.

The University grounds consist of 270 acres of land, bounded on the north and south by Fall Creek ravine and Cascadilla gorge respectively. One hundred and twenty-five acres of the arable land are devoted to the use ot the Agricultural Department, This part of the domain is managed with a view not only to profit, but also to illustrate the best methods of general agriculture. A four years' rotation is practiced on the principal fields ; one year of clover, one of corn, one of oats or barley, and one of wheat. A dairy of twenty cows, a flock of sheep, some fifteen horses and colts, and other live stock are kept upon the farm. Nearly all of these animals are grades, bred and reared with the single view of giving object lessons which can be practiced with profit by the students on their return to their homes. A four-story barn provides for housing all the animals, machinery, tools, hay, grain, and manures. The stationary thresher, feed-cutter, chaffer, and other machinery are driven by steam power. The barn also furnishes many facilities for carrying on investigations in feeding and rearing all classes of domestic animals.

The barn is also furnished with a well equipped piggery and tool house. Not far from the main barn have been constructed four buildings with suitable yards and appliances for incubating and rearing domestic fowls.

The agricultural class room is provided with a collection of grains and grasses, implements of horse and hand culture, and various appliances for carrying on instruction and conducting investigations. The whole plant is managed with a view to the greatest economy consistent with the greatest efficiency in imparting instruction.

COURSES.

The courses in the college attended by veterinary students are given by the Department of Agriculture proper and are as follows :

3 (in part). The horse, breeds and breeding, feeding, education, care and driving. Fall term. Two hours. Professor ROBERTS.

10. Animal Industry. Principles of breeding, history and development, improvement and creation of dairy and beef, breeds of cattle ; principles of feeding, care, selection and management of dairy and beef cattle. Winter and spring terms. Two hours. Practice, one hour by appointment, for those electing it. Assistant Professor WING.

PHARMACOLOGY.

This term is employed in its comprehensive meaning to include not only the materials of medicine, but their preparation, use and physiological action. Allowing for certain exceptional differences, there is, in general, a great resemblance in the action of drugs in the lower animals and human beings. The efficiency of new drugs is commonly tested upon the lower forms before being applied to man. For a broad and enlightened human practice a medical course dealing with the treatment of lower animals offers a most thorough preparation.

The more important drugs and preparations as given in the U. S. Pharmacopœia are studied, including the new ones which appear from time to time.

Opportunities for advanced research are abundant in this field. The histologic changes in certain tissues resulting from the toxic doses of many drugs are as yet unknown.

COURSES.

1. The Materials of Medicine. A study of the uses and actions of the various drugs and their preparation. A varied collection of the crude drugs is available and examined at the recitations. The course is conducted partly in the form of recitations and partly in the form of lectures One hour each week throughout the year. Dr. Fish.

2. Pharmacy. Each student is required to make those preparations which are most commonly used in practice; tinctures, fluid extracts, balls, powders, ointments, etc. In addition to this each student will have practical experience in writing and compounding prescriptions. The importance of a discriminating and accurate system for dispensing medicines is kept well in mind. Two hours per week. Fall term. Dr. Fish.

3. Therapeutics. The treatment and cure of disease. This subject, standing along with pathology, unites physiology, anatomy, chemistry and botany with medicine and surgery. It is therefore desirable to have some knowledge of these branches in order to obtain a full appreciation of the means employed in the restoration of health. Lectures one hour each week. Spring term. Dr. Fish.

This course must be preceded by the first year course in physiology or its equivalent.

4. Research and Thesis. Three hours throughout the year. Dr. Fish.

VETERINARY MEDICINE: ZYMOTIC DISEASES, VETERINARY SANITARY SCIENCE: PARASITES AND PARASITISM.

The course in Veterinary Medicine deals with the purely medical diseases of the different genera of domestic animals,—including the various constitutional dietetic and toxic affections and the maladies of the different systems of organs—digestive, respiratory, circulatory, urinary, cutaneous, nervous and visual. The lectures and recitations extend over the two last years of undergraduate study. They are illustrated by diagrams, by dry and wet museum specimens and by subjects presented in the clinics. The special value of the course lies in its wide scope which includes equally all species, the aim being not to make students hippopathologists only, but zoöpathologists or more definitely veterinary pathologists. The site of the College between the city of Ithaca and a well stocked agricultural environment is well calculated to carry out this aim.

In course 2 is treated the general subject of zymosis and contagion; the microbiology of diseases; the accessory causes such as special conditions of soil, culture, climate, season, weather, trade, migration, war, consumption of animal food, etc.; the diagnosis of the different plagues, the various methods of control and suppression, by the individual owner, the municipality, town, county, state, or nation; and the exclusion of pestilences from a country. Each zymotic disease is made a special study, and its transmissibility to different genera of animals, from animals to man, and from man to animals together with the susceptibility of each genus to immunization and the best known means of securing this receive due attention. Enzoötic affections receive the same attention, and the necessary preventive measures in connection with soils, drainage, buildings, exposure, wells, ponds, marshes, factories and other local causes are fully dealt with. Illustrative diagrams, preserved specimens and when opportunity offers fresh subjects and specimens are employed for demonstration.

In the course on parasites and parasitism, the zoölogical place of the parasite in nature, its life history in connection with the animal body and apart from it, the lesions and symptoms caused, the genera susceptible, and its diagnosis, destruction and prevention are fully considered. An extensive collection of the parasites of domestic animals is available for demonstration, and where these are lacking diagrams and illustrations will be used.

The medical clinic covering this whole field and drawn from city and country alike furnishes the greatest possible variety as regards genus and species of patient, while the hospital and isolation wards furnish a supply of cases that can be watched from day to day. Individual cases are placed in charge of senior students who keep a record of symptoms and treatment, This record is open to the entire class so that all can profit equally by every case. Outpatients on the University farm and in the city can also be availed of for clinical uses.

COURSES.

1. Veterinary Medicine: Principles and Practice. Fall, winter and spring. Three hours. Professor LAW.

This course extends over two years.

2. Contagious Diseases; Veterinary Sanitary Science. Fall, winter and spring. Two hours. Professor LAW.

[This course will be given to second and third year men in 1898–99. See the following].

3. Parasites and Parasitic Diseases. Fall, winter and spring. Two hours. Professor LAW.

[This course will be given to second and third year men in 1897–98. See the preceding.]

4. Clinical Veterinary Medicine. Fall, winter and spring. Three hours. Professor LAW.

5. Clinical Veterinary Medicine. Fall, winter and spring. Six hours. Professor LAW.

6. Research and Thesis. Three hours throughout the year. Professor LAW.

SURGERY, OBSTETRICS, ZOÖTECHNICS AND JURISPRUDENCE.

SURGERY.

The instruction in Surgery is designed to equip the student with both theoretical and practical knowledge thorough in every respect.

The class room work extends through the second and third years consisting of lectures, or of recitations supplemented by lectures.

One term of fourteen weeks, five hours per week is given to General Surgery, including general surgical pathology, the infection of wounds, surgical therapeutics, aseptic and antiseptic handling of wounds, the handling and restraint of animals.

Special Surgery extends over the remainder of the course, considering in detail the surgical diseases of the various parts of the body, their causes, nature, diagnosis and treatment to which is added an extended course in castration and spaying. The facilities for this instruction are in keeping with the general aim and scope of the college.

Abundant instruments and apparatus of both home and foreign patterns are provided for illustrating the lectures ; while the college museum contains abundant material which is freely used for illustrating surgical pathology.

The college becomes the possessor of the extensive pathological collection of the veterinary department of Cornell University accumulated during nearly thirty years to which have been added many valuable preparations contributed by veterinarians, and secured from our college clinics.

The course in practical surgery extending through the second and third years is given in the college clinics.

The location of Cornell University and the organization of the Veterinary College gives unusual opportunities for clinical instruction in the numbers and character of cases, the variety of species of animals and the availability of each case for purposes of instruction.

Each member of the veterinary faculty being exclusively employed by the college and in no degree dependent upon private practice all reasonable effort is exercised to lead owners of livestock to enter all cases in the free clinics instead of diverting suitable cases to private practice.

The college clinics being wholly free, regardless of the value of the animal, the worth of the proposed operation or the owner's ability or willingness to pay, obviates the usual disadvantages of free clinics where largely inferior animals the property of poor and frequently careless people are presented in a state of health and with general surroundings not propitious for testing the value of a line of treatment or of following it to a successful issue, failing consequently to impart the desired knowledge, interest or enthusiasm to the student ; while in our free clinics the student has to deal with animals of the same general character and value as those met with in ordinary veterinary practice.

The thickly inhabited agricultural country about Ithaca furnishes an abundance of clinical material of all classes of disease not alone of horses and dogs but of every species of domesticated animal.

Numerous cases, especially those for major surgical operations are drawn from a radius of twenty-five miles thus placing a large and important stock-producing area tributary to our clinics.

All patients are admitted subject to our discretion as to whether an operation shall be performed by a member of the staff or by a student, the general plan being for the professor in charge to perform a sufficient number of operations to illustrate methods in a given case, after which they are performed by students in turn, under immediate supervision, aiming in this way to thoroughly fit men to perform any desired operation supported by that skill and confidence which actual work alone can give.

Practical Surgery is required of all second and third year students the course extending through both years.

The second year student devotes three hours per week to clinics throughout the year, during which period he is required to keep in order and sterilize operating instruments, apply dressings to wounds, prepare and apply plaster of Paris and other fixation bandages to various parts, and to perform such surgical operations as opening abscesses, excising simple tumors and controlling the consequent hemorrhage, castration and spaying of dogs and cats, castration of normal horses, rasping, cutting and extracting irregular teeth and other operations of a similar grade.

The third year student devotes six hours a week throughout the year to clinics, repeats and perfects himself in the operations of the second year, makes examinations and diagnoses, administers chloroform to the larger animals and personally performs the major surgical operations.

The character of these operations may best be illustrated by the clinical work carried out during 1896-97. Among those performed by the students themselves may be enumerated the removal of malignant tumors, extraction of the molars of the horse by trephining and punching, tracheotomy, arytenectomy for the cure of roaring, sciatic and high and low plantar neurotomy, castration of cryptorchid horses and in fact they have performed all operations which have been at all repeated. These were not on worthless subjects, but on animals of distinct commercial value which were operated upon with a view to restoring them to usefulness; and the results were followed and recorded.

Each student must acquire practical and experimental knowledge of surgery parallel to his theoretical training in the class room and is required to demonstrate his ability in the operating room.

All patients upon which important operations are performed are detained in the surgical ward until the crisis of the operation has been passed, and the student operating is required to follow his work and is held personally responsible for the proper after treatment of his patient.

All needed instruments and appliances for instruction in practical surgery are provided, while the surgical ward and operating room elsewhere described are commodious and perfect in every appointment. The most modern appliances for securing and controlling animals such as operating tables, stocks and casting apparatus are fully provided.

OBSTETRICS.

A thorough course in obstetrics is given during the second year, consisting chiefly of lectures including two hours per week during the winter term and four hours per week in the spring term, a total of sixty lectures or recitations.

The course is preceded by an extended study of embryology during the first year which serves as a foundation for the proper consideration of the subject. Obstetrical anatomy and physiology have also been in a measure mastered during the first year in the departments of anatomy and physiology, all three are then reviewed with special reference to obstetrics, teratology and diseases of new born animals.

The lectures are based in arrangement on Fleming's Obstetrics supplemented by personal experience. Models and valuable museum preparations are used for illustration, while our location permits of our availing of considerable clinical material which we are planning to greatly augment.

ZOÖTECHNICS.

The subject of Zoötechny is chiefly taught in the College of Agriculture of Cornell University, covering the various breeds of domestic animals, the methods of breeding and handling.

Supplementary to this instruction a course of lectures covering one term two hours a week or about 24 lectures will be given dealing especially with the breeding, care and management of animals in relation to disease, hereditary diseases and vices and a general resumé of the subject of breeding as related to veterinary science.

JURISPRUDENCE.

A course of two lectures a week is given during the winter term of the second year, dealing with the general responsibilities of veterinarians to the public, to stock owners and professional colleagues; methods of making and recording examinations for soundness, and a special study of physical diagnosis and prognosis as related to this subject.

Practice is given from time to time in this work at the clinics.

COURSES.

1. General Veterinary Surgery. Fall term. Five hours. Professor WILLIAMS.

2. Special Surgery (head and neck). Winter. Three hours. Professor WILLIAMS.

3. Veterinary Obstetrics. Winter. Two hours. Professor WILLIAMS.

4. Veterinary Obstetrics. Spring. Four hours. Professor WILLIAMS.

5. Veterinary Jurisprudence. Spring. One hour. Professor WILLIAMS.

[Courses 1–5 will be given to second and third year men in 1898–99. See under Course 11.]

6. Clinical Veterinary Surgery. Fall, winter and spring. Three hours. Professor WILLIAMS.

7. Clinical Veterinary Surgery. Fall, winter and spring. Six hours. Professor WILLIAMS.

8. Special Surgery (chest, abdomen and anterior limbs). Fall. Five hours. Professor WILLIAMS.

9. Special Surgery (posterior limbs, skin). Winter. Three hours. Professor WILLIAMS.

10. Zoötechnics. Winter. Two hours. Professor WILLIAMS.

11. Special Surgery (genito-urinary organs, castration). Spring. Five hours. Professor WILLIAMS.

[Courses 8–11 will be given to second and third year men in 1897–98. See under Course 5].

12. Research and Thesis. Three hours throughout the year. Professor WILLIAMS.

COMPARATIVE PATHOLOGY, BACTERIOLOGY AND MEAT INSPECTION.

The instruction in pathology and bacteriology is given by means of lectures, recitations and laboratory work. In general pathology the students are drilled in the definitions and in the nature of the morbid changes included in this subject. Ziegler's text book in general pathology will be followed but supplemented by the results of more recent investigations as they are found in current literature and special monographs. Pathological histology will receive special attention. In this work the students will be taught, by actual laboratory work, the methods of preparing permanent preparations and of examining diseased tissues in the fresh condition. They will have the privilege of studying blood and of counting the red and white corpuscles. For this highly important work the laboratory is especially well equipped.

The fall term in bacteriology is devoted to methods. The laboratories are well supplied with the best modern apparatus. The students will have the opportunity, under proper supervision, of preparing culture media, of making various cultures and of studying the morphology of bacteria in both the fresh (living) condition and in stained cover-glass preparations. In fact, all of the technique necessary for a practical working knowledge in bacteriology will be carefully covered. In the winter the more important species of pathogenic and economic bacteria will be studied. The methods of differentiating closely related species will receive attention in the laboratory. The methods for the bacteriological analyses of milk and of water, and those employed in the investigation and diagnosis of infectious diseases, such as tuberculosis, anthrax, glanders and the infectious swine and poultry disorders will receive careful attention. In the spring term each student will have an opportunity of carrying out independently some investigation in which he is specially interested, thus gaining an actual knowledge of the application of bacteriological methods. The lectures in the spring term will deal with applied bacteriology. In this course will be considered disinfection, sterilization, the means by which pathogenic bacteria are disseminated, protective inoculation and serum therapy in animal diseases, and other kindred subjects.

For those who wish to do advanced work in either of these subjects excellent facilities are afforded by way of a separate room and apparatus. As we are constantly investigating outbreaks of infectious diseases, among animals in the state, an abundance of working material is assured. This enables the students to come into touch with actual work in bacteriological diagnosis.

As is seen from the above, it is the aim of this department to drill the students by means of actual work in the technique necessary for them to successfully apply in their future professional duties the knowledge acquired in the study of pathology and bacteriology. To this end the courses of instruction have been carefully arranged and for this purpose the laboratories have been equipped.

COURSES.

1. General Pathology. Fall term. This course is open to students who have had Normal Histology and at least one year's work in Anatomy and Physiology. Lectures and recitations. Two hours. Professor MOORE.

2. Pathology of infectious Diseases. Winter term. This course is open to students who have taken Course 1 and have taken or are taking Course 4. Lectures and laboratory work. Two hours. Professor Moore and Instructor REED.

3. Meat Inspection. Spring term. This course is open to students who have taken Courses 1 and 2. Lectures and laboratory work. Two hours. Professor MOORE and Instructor REED.

4. Bacteriology. Lectures and laboratory work. Three hours per week throughout the year. Professor MOORE and Instructor REED.

5. Research in Pathology and Bacteriology. Laboratory work with lectures throughout the year. Professor MOORE and Instructor REED. This course is designed for those preparing theses for the baccalaureate or advanced degrees and for those wishing to undertake original investigation in Pathology and Bacteriology. This course is open to students who have taken Courses 1 and 2 if the work is in Pathology and 4 if in Bacteriology, or their equivalent in some other University. Elementary chemistry and a reading knowledge of French and German are indispensable for successful work in this course.

GRADUATE AND RESEARCH WORK.

The opportunities for study and investigation offered to advanced and graduate students in the college and in the various departments of Cornell University are very great. The situation of the college gives it a great variety as well as an abundance of material for research, and the facilities for prosecuting the work are ample. Each student, as a part of his last year's work, must write a thesis giving the results of a personal investigation upon some subject in veterinary medicine. See under requirements for graduation, p. 15). To students preparing theses and to graduate students every opportunity and encouragement will be offered to prosecute independent investigations. (For the special courses offering thesis and research work see under the various departments pp. 17–31).

SEMINARY.

The Veterinary College Seminary, which meets every two weeks, has for its membership: (1) All members of the instructing body; (2) All students preparing theses in the college; (3) All students doing graduate and research work.

The purpose of the Seminary is: (a) To discuss the methods for advanced and independent work, that is such work as is expected of those preparing theses or prosecuting any special investigation; (b) The presentation of the results of investigations and the progress of knowledge in the various departments; (c) Reports by students of the progress of their work.

Naturally the members of the faculty take a leading part in (a and b) but as soon as the advanced work of the students is well begun, the students present before the Seminary the results of their work.

At each meeting, after the report, the subject is open to all the members of the seminary for questions and discussion. From the experience of the last year it is believed that the seminary is one of the most important parts of the college curriculum for preparing students for the duties and responsibilities of an honorable professional career.

SOCIETY OF COMPARATIVE MEDICINE.

This is a student society organized for the purpose of giving mutual aid in gaining general and special medical knowledge, facility in conducting the exercises of the meetings and in presenting papers and discussions in a clear and forcible manner before an audience.

TUITION AND LABORATORY FEES.

In the words of the law for the administration of the New York State Veterinary College : "No tuition fee shall be required of a student pursuing the regular veterinary course, who, for a year or more immediately preceding his admission to said veterinary college shall have been a resident of this state."

For students, not residents of New York State, the tuition is $100 per annum, $40 to be paid at the beginning of the fall , $35 at the beginning of the winter and $25 at the beginning of the spring term.

Laboratory fees.—Every person taking laboratory work is required to pay for the material actually used. This will average approximately $25 per year.

At the end of the course a fee of $5.00 is required of each student receiving a degree.

Living expenses in Ithaca vary from $3.50 to $10 per week. Books, instruments, stationery, etc., cost $10 and upward per year.

THE HORACE K. WHITE PRIZES.

These prizes, established by Horace K. White, Esq., of Syracuse, are awarded annually to the most meritorious students in the graduating class of the college. One prize of $15 to the first in merit ; to the second in merit, a prize of $10.

POSITIONS AS DEMONSTRATORS.

At present two demonstrators in Anatomy are appointed each year at a salary of $125.00. These positions are open to members of the graduating class and to graduates of this college who have shown special proficiency in anatomy.

Only those students who have been one or more years in this college are eligible to appointment as demonstrator.

APPENDIX A.

OPENINGS FOR VETERINARIANS IN AMERICA.

1st. In the United States Cavalry and Artillery there is a demand for a limited number of veterinarians.

2nd. In the Bureau of Animal Industry, U. S. Department of Agriculture, a number of veterinarians are employed professionally, as live-stock agents and inspectors ; inspectors and superintendents of quarantine stations ; investigators in bacteriology and pathology, and as meat inspectors. (By an act of Congress the federal meat inspectors must be graduates of a veterinary college.)

3rd. In the different States there are appointments as State Veterinarians, and in some as County or District Veterinarians, to attend to preventable diseases of animals.

4th. The time is not far distant when each municipality must have its veterinary inspectors of markets, abattoirs and butcher meat, as well as of milk and other dairy products.

5th Accomplished veterinary pathologists are needed in all the States to serve on tuberculosis and other commissions, so that work in this field may be conducted intelligently and successfully on scientific lines. Such work on our herds can only be carried on by those specially trained in the anatomy, physiology, hygiene and pathology of the lower animals.

6th. Educators in comparative pathology are wanted in Agricultural and Veterinary Colleges, and experiment stations, and must ere long be in demand for every Medical College which aims to keep abreast of the times.

7th. There are always openings in the wide field of private veterinary practice. With a ratio of three farm animals to every human being, and with less than one veterinarian to every ten doctors of medicine for man, the balance of opportunity seems to be largely in favor of the veterinary practice, and this preponderance must steadily increase with the recovery of stock values and with the increase in numbers and individual value of farm animals.

APPENDIX B.

Legal requirements of preparatory and professional study for graduation in veterinary medicine and for license to practice Veterinary Medicine in the State of New York.

Extract from Handbook No. 3 of examinations issued by the University of the State of New York and from Chapter 860 of the Laws of New York, "An act to amend article ten of the public health law, relating to Veterinary Medicine and Surgery."

PREPARATORY EDUCATION.—Laws of 1895, ch. 860, § 176. "The degree in Veterinary Medicine shall not be conferred in this state before the candidate has filed with the institution conferring it, the certificate of the regents that three years before the date of the degree, or before or during his first year of veterinary medical study in this state, he has either graduated from a registered college or satisfactorily completed an academic course in a registered academy or high school; or has a preliminary education considered and accepted by the regents as fully equivalent."

Notes on the preliminary educational qualifications.—1. The veterinary medical student certificate must be earned three years before the date of the degree. If granted on evidence of a satisfactory college or high school course or an equivalent, the work offered must have been completed three years before the date of the Veterinary degree.

2. The regents will accept as fully equivalent to the required academic course any one of the following:

a. A certificate of having successfully completed at least one full year's course of study in the collegiate department of any college or university, registered by the regents as maintaining a satisfactory standard.

b. A certificate of having passed in a registered institution examinations equivalent to the full collegiate course of the freshman year or to a completed academic course.

c. Regents' pass cards for any 48 academic counts or any regents' diploma.

d. Certificate of graduation from any registered gymnasium in Germany, Austria or Russia.

e. A certificate of the successful completion of a course of five years in a registered *ginnasio* and three years in a *liceo.*

f. The bachelor's degree in arts or science, or substantial equivalents from any registered institution in France or Spain.

g. Any credential from a registered institution or from the government in any state or country which represents the completion of a course of study equivalent to graduation from a registered New York high school or academy or from a registered Prussian gymnasium.

License to practice veterinary medicine and surgery in the State of New York. Extracts from article X, Ch. 860, laws of New York, 1895.

§ 171. "*Qualifications for practice.*—No person shall practice veterinary medicine after July one, eighteen hundred and ninety-five, unless previously registered and legally authorized, unless licensed by the regents and registered as required by this article ; nor shall any person practice veterinary medicine who has ever been convicted of felony by any court, or whose authority to practice is suspended or revoked by the regents on recommendation of a State board.

§ 176. *Admission to examination.*—The regents shall admit to examination any candidate who pays a fee of ten dollars and submits satisfactory evidence, verified by oath if required, that he (first) is more than twenty-one years of age ; (second) is of good, moral character ; (third) has the general education required in all cases after July first, eighteen hundred and ninety-seven, preliminary to receiving a degree in veterinary medicine ; (fourth) has studied veterinary medicine not less than three full years, including three satisfactory courses, in three different academic years, in a veterinary medical school registered as maintaining at the time a satisfactory standard ; (fifth) has received a degree as veterinarian from some registered veterinary medical school. The degree in veterinary medicine shall not be conferred in this state before the candidate has filed with the institution conferring it, the certificate of the regents that three years before the date of the degree, or before or during his first year of veterinary medical study in this State, he has either graduated from a registered college or satisfactorily completed an academic course in a registered academy or high school ; or has a preliminary education considered and accepted by the regents as fully equivalent." [See above for equivalents.]

"Students who had matriculated in a veterinary medical school before October first, eighteen hundred and ninety five, shall be exempted from this preliminary education requirement, provided the degree be conferred before July first, eighteen hundred and ninety eight."

§178. *Examinations and Reports.*—Examination for license shall be given in at least four convenient places in this State and at least four times annually, in accordance with the regents' rules, and shall be exclusively in writing and in English. Each examination shall be conducted by a regent examiner, who shall not be one of the veterinary medical examiners. At the close of each examination, the regents' examiner in charge shall deliver the questions and answer papers to the board, or to its duly authorized committee, and such board without unnecesary delay, shall examine and mark the answers and transmit to the regents an official report, signed by its president and secretary, stating the standing of each candidate in each branch, his general average, and whether the board recommends that a license be granted. Such report shall include the questions and answers and shall be filed in the public records of the university. If a candidate fails on his first examination, he may, after not less than six month's further study, have a second examination without fee. If the failure is from illness or other cause satisfactory to the regents, they may waive the required six month's study.

§179. *Licenses.*—On receiving from the State board an official report that an applicant has successfully passed the examination and is recommended for license, the regents shall issue to him, if in their judgment he is duly qualified therefor, a license to practice veterinary medicine. Every license shall be issued by the university under seal and shall be signed by each acting veterinary medical examiner of the board and by the officer of the university who approved the credential which admitted the candidate to examination, and shall state that the licensee has given satisfactory evidence of fitness, as to age, character, preliminary and veterinary medical education and all other matters required by law, and that after full examination he has been found properly qualified to practice. . . . . . . Before any license is issued it shall be numbered and recorded in a book kept in the regent's office and its number shall be noted in the license. This record shall be open to public inspection, and in all legal proceedings, shall have the same weight as evidence that is given to a record of conveyance of land.

§180. *Registry.*—Every license to practice veterinary medicine shall, before the licensee begins practice thereunder, be registered in a book to be known as the "veterinary medical register," which shall be provided by and kept in the clerk's office of the county where such practice is to be carried on, with name, residence, place and date of birth, and source, number and date of its license to practice. Before registering, each licensee shall file, to be kept in a bound volume in the county clerk's office, an affidavit of the above facts, and also that he is the person named in such license, and had, before receiving the same, complied with all requisites as to attendance, terms and amount of study and examination required by law and the rules of the university as preliminary to the conferment thereof, and no money was paid for such license except the regular fees, paid by all applicants therefor; that no fraud, misrepresentation or mistake in any material regard was employed by anyone or incurred in order that such license should be conferred. Every license, or if lost, a copy thereof, legally certified so as to be admissable as evidence, or a duly attested transcript of the record of its conferment, shall before registering, be exhibited to the county clerk, who, only in case it was issued or indorsed as a license under seal by the regents, shall indorse or stamp on it the date and his name preceded by the words: "Registered as authority to practice veterinary medicine, in the clerk's office of ——— county." The clerk shall thereupon give to every veterinarian so registered a transcript of the entries in the register, with a certificate under seal that he has filed the prescribed affidavit. The licensee shall pay to the county clerk as a total a fee of one dollar for registration, affidavit and certificate."

CATALOG OF STUDENTS.

1896-1897.

THIRD YEAR STUDENTS.

Howe, Walter Emerson, V.S.	Delphi
Ryder, Herman Reeve, V.S.	Delphi
Weihe, Walter Edward	Wilkesbarre, Pa.

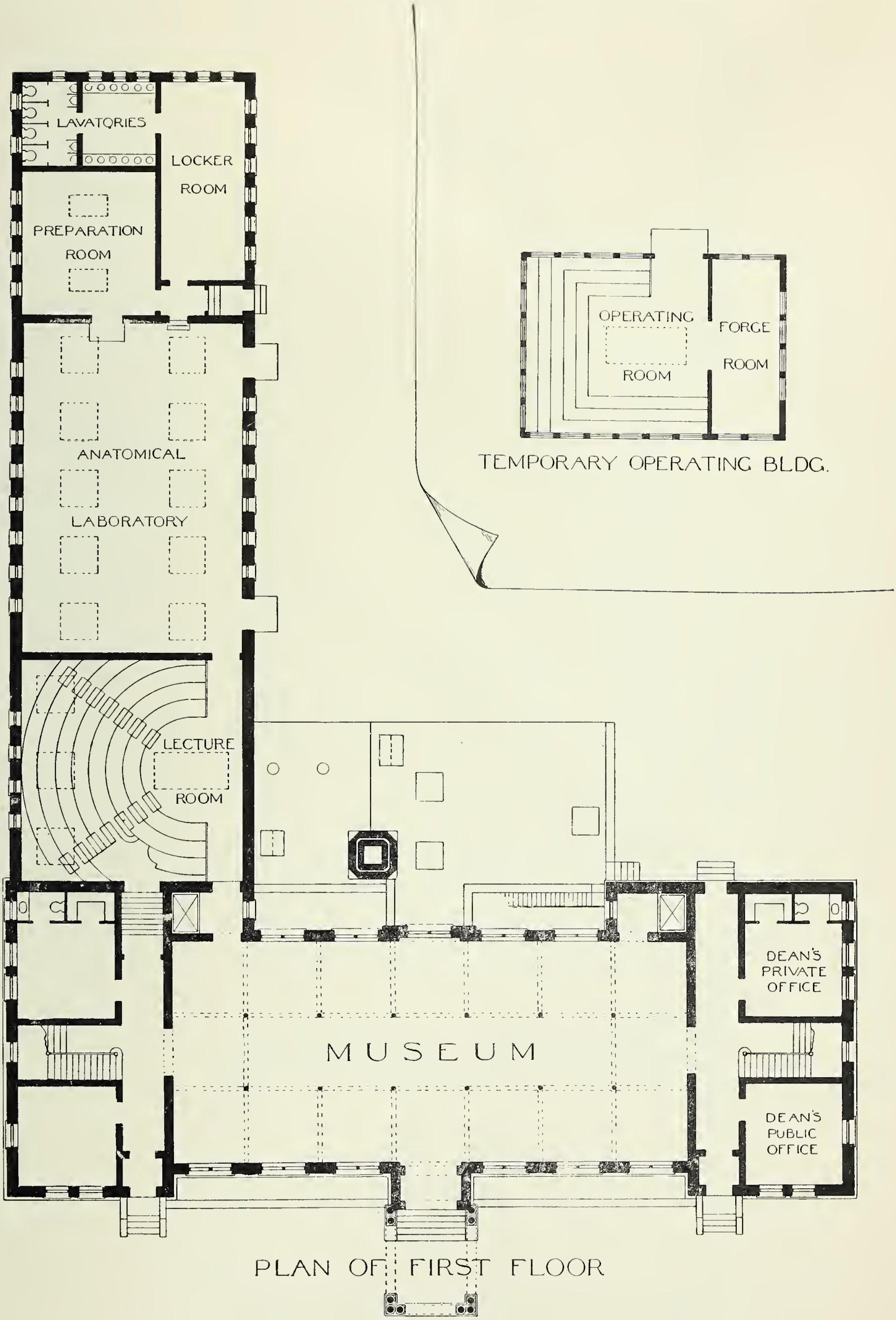
SECOND YEAR STUDENTS.

Kelly, Albert Boulware	Albany
Lehrman, Henry John	Montclair, N. J.
Moore, Edward Lockhart, B.S.	Halifax, N. S. Canada

FIRST YEAR STUDENTS.

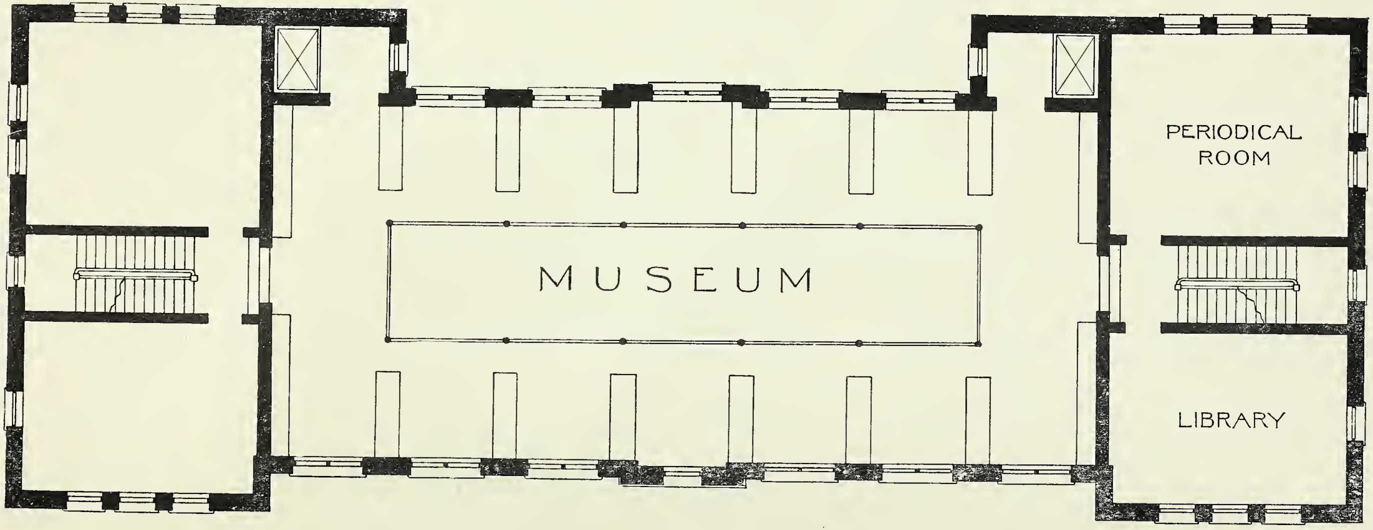
Gay, Carl Warren	Ithaca
House, Fredd Chandler	Ithaca
Illston, Henry Wright	Ithaca
Mitchell, William John	Ithaca
Potter, Charles Bucher	Ithaca

MORRILL HALL—REGISTRATION—BREEDS AND BREEDING.

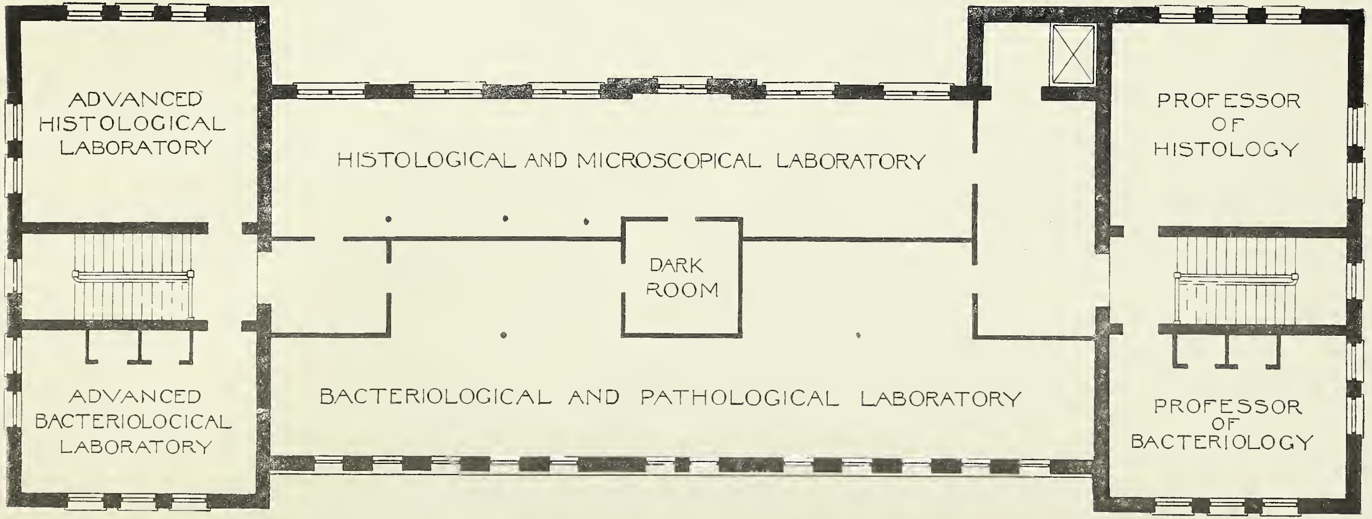


TEMPORARY OPERATING BLDG.

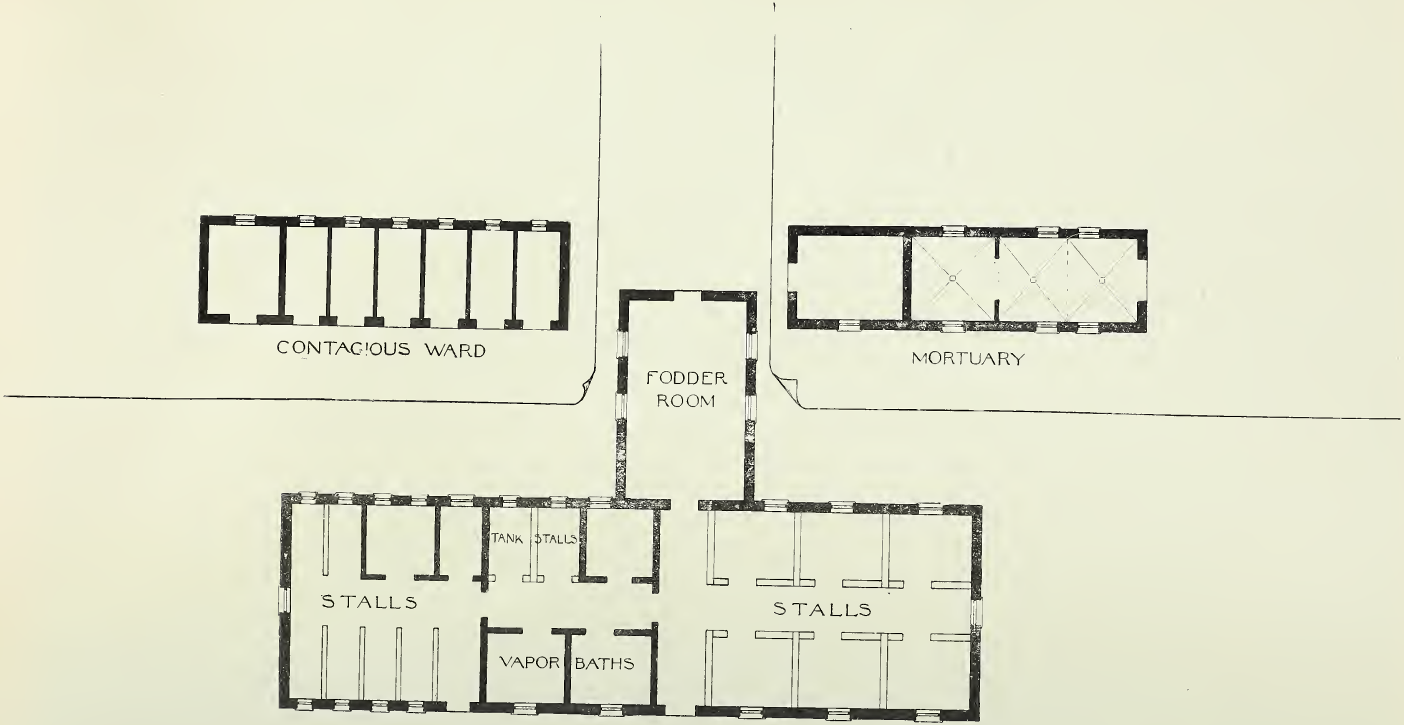
PLAN OF FIRST FLOOR



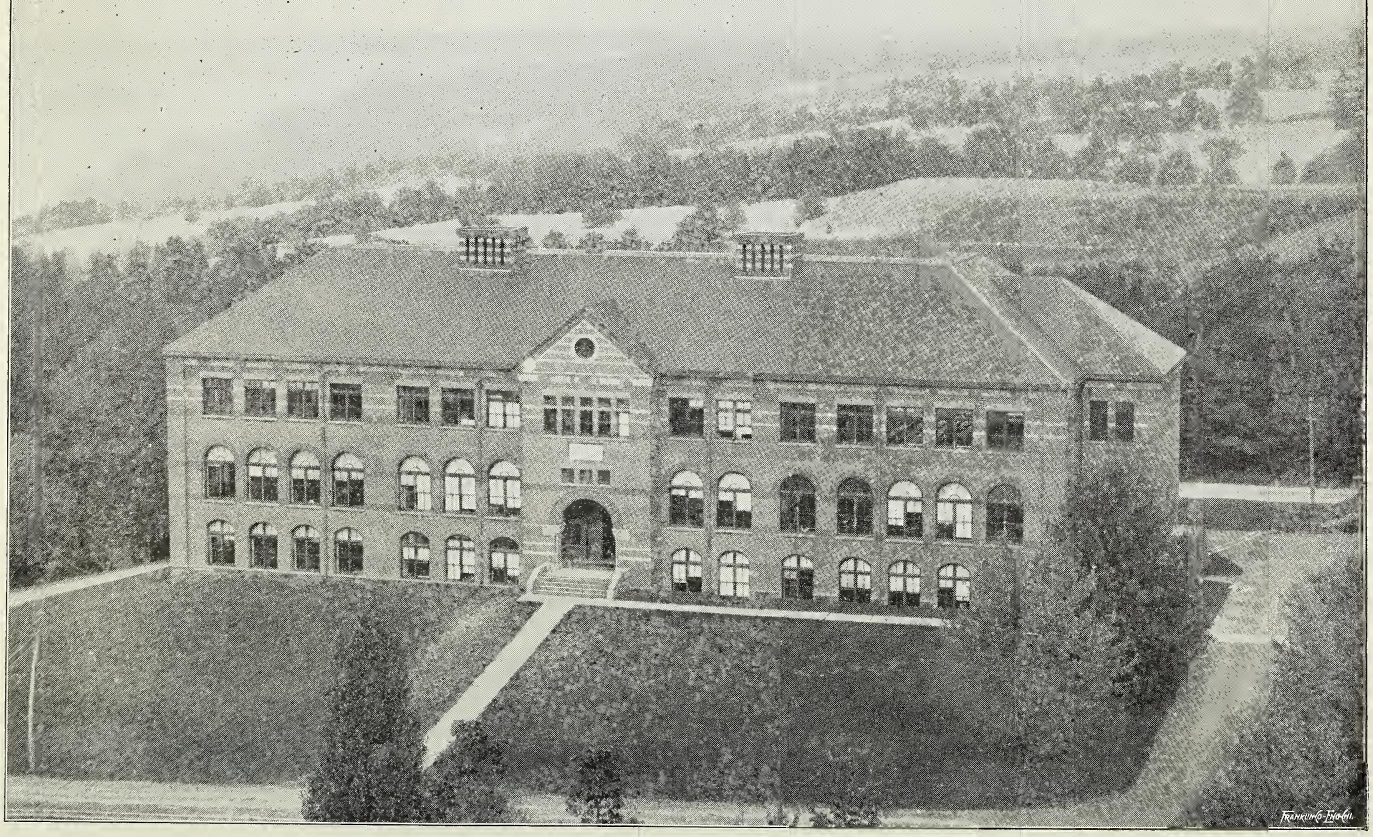
PLAN OF SECOND FLOOR


ADVANCED HISTOLOGICAL LABORATORY
HISTOLOGICAL AND MICROSCOPICAL LABORATORY
PROFESSOR OF HISTOLOGY
DARK ROOM
ADVANCED BACTERIOLOCICAL LABORATORY
BACTERIOLOGICAL AND PATHOLOGICAL LABORATORY
PROFESSOR OF BACTERIOLOGY

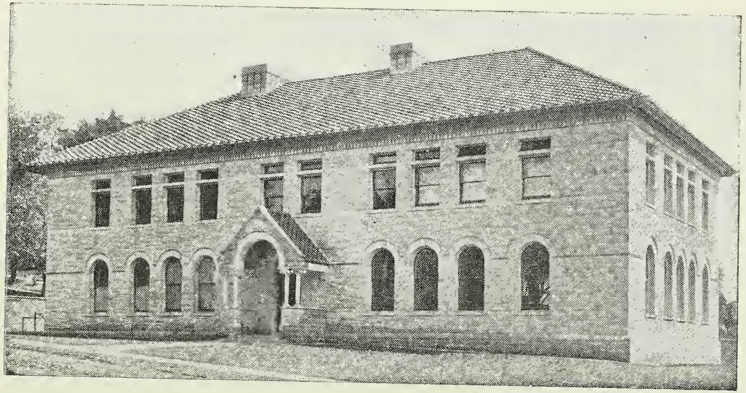
PLAN OF THIRD FLOOR



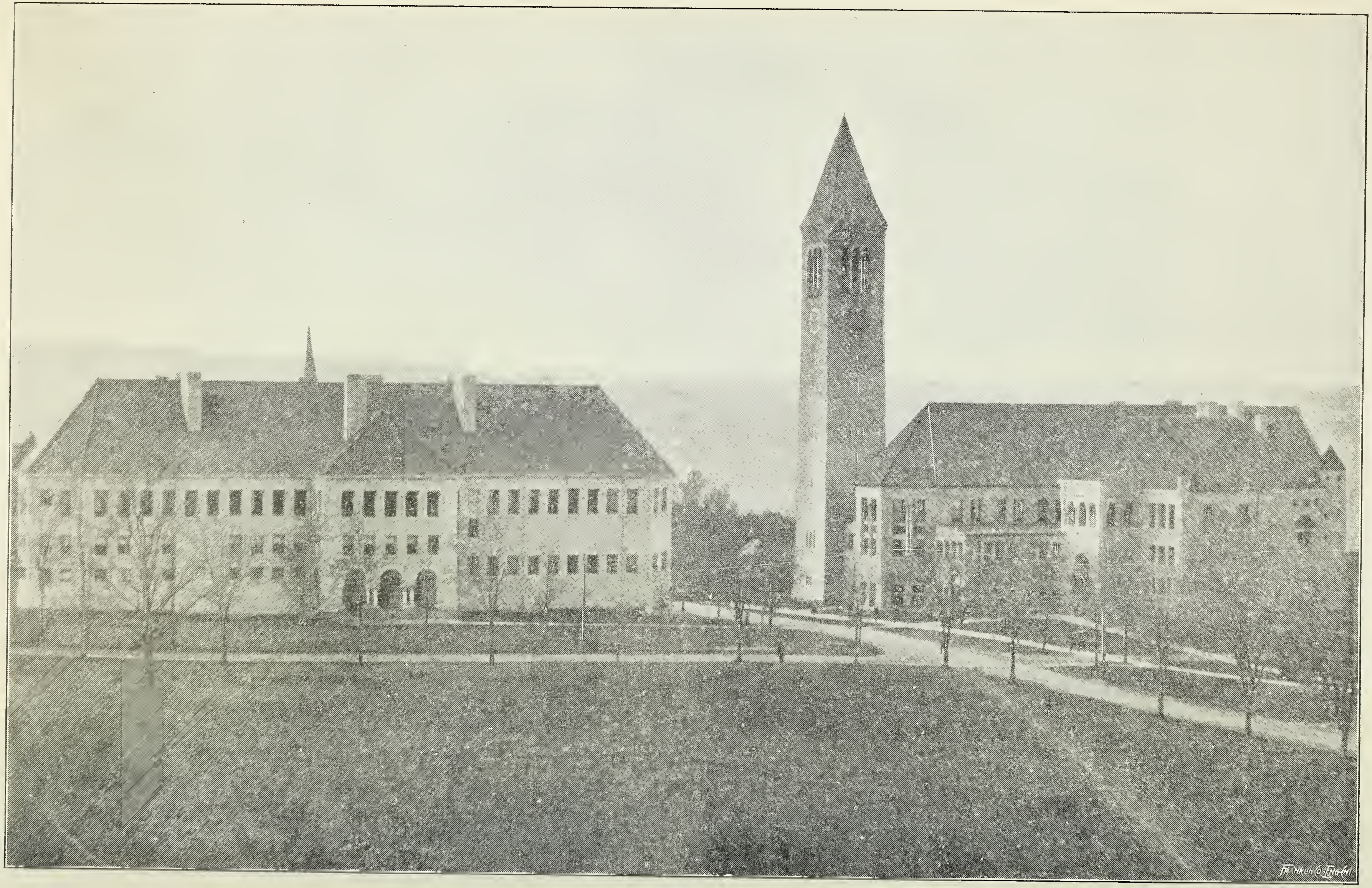
PLAN OF GENERAL WARD



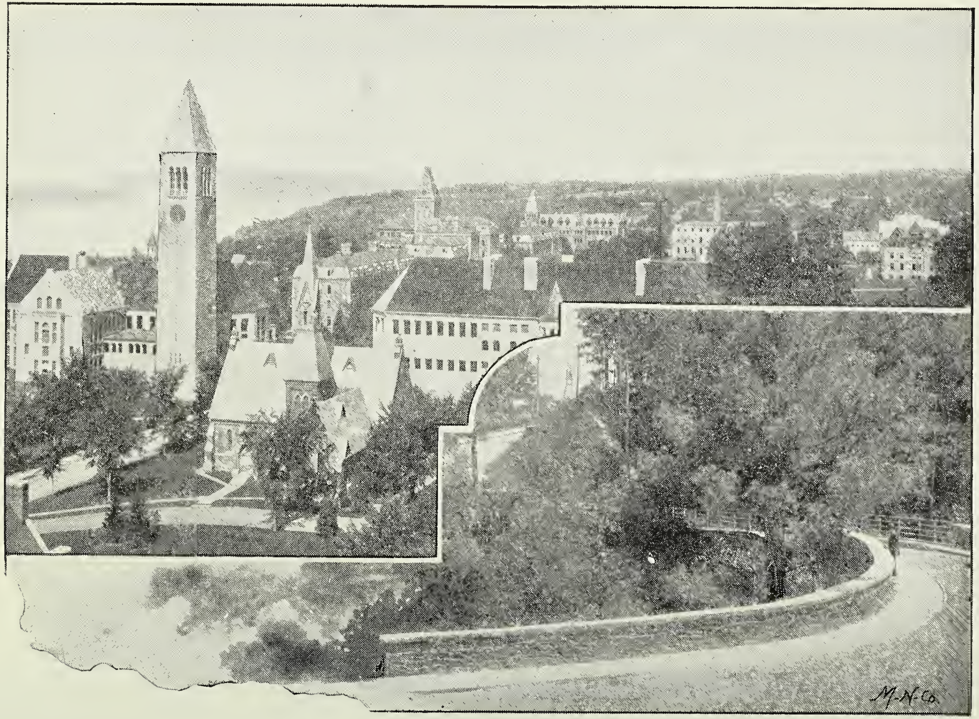
MORSE HALL—CHEMISTRY.



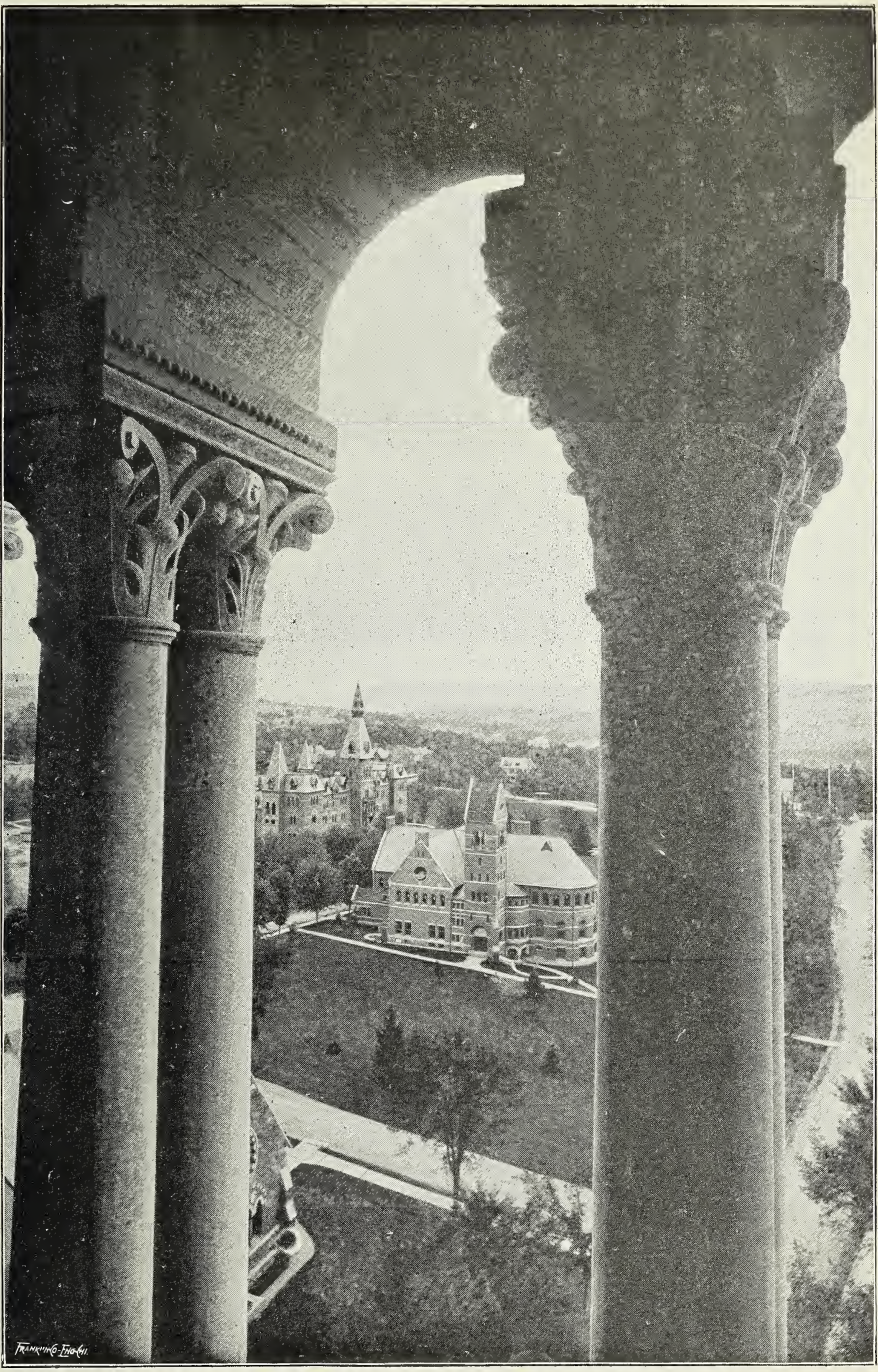
DAIRY BUILDING—BREEDS AND BREEDING.



LAW SCHOOL AND LIBRARY



CORNELL UNIVERSITY AND CASCADILLA BRIDGE LOOKING NORTH.



CORNELL UNIVERSITY—Looking South from the Library Tower.

UNIVERSITY PUBLICATIONS

The following publications are issued at the University and may be had on application to the Registrar.

Annual Announcement of all Courses of Instruction.

Question Papers used at Examinations for Admission, for Advanced Standing in the Academic Departments, and for University Scholarships.

Announcement of the President White School of History and Political Science.

Announcement of the Sage School of Philosophy.

Instruction in Greek, Latin, Comparative Philology and Classical Archæology.

Announcement of Courses of Instruction in Mathematics.

Announcement of Courses of Instruction in Physics.

Announcement of Courses of Instruction in Chemistry.

Announcement of Courses of Instruction in Marine Engineering and Naval Architecture.

Announcement of Courses of Instruction in Architecture.

Announcement of Courses of Instruction in Agriculture.

Announcement of the New York State Veterinary College.

Announcement of the College of Law.

Announcement of Courses of Instruction in the Summer School.

Announcement of the Summer School of Law.

For the following apply to the Chief Clerk, College of Agriculture, Ithaca, N. Y.

Bulletins of the Cornell University Agricultural Experiment Station.

Teacher's Leaflets in Nature-Study, prepared by the Cornell University Agricultural Experiment Station.

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"There is hereby established a State Veterinary College at Cornell University." Laws of New York, 1894, p. 307.

ANNOUNCEMENT

OF THE

NEW YORK STATE

VETERINARY COLLEGE

AT

CORNELL UNIVERSITY

1898-99

THE LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

ITHACA, N. Y.
PUBLISHED BY THE UNIVERSITY
1898

CALENDAR OF THE NEW YORK STATE VETERINARY COLLEGE AND OF CORNELL UNIVERSITY

1898–99

FALL TERM—1898

Sept. 13, Tuesday.	University entrance examinations begin.
Sept. 19, Monday.	Registration of matriculated students.
Sept. 20, Tuesday.	Registration of matriculated students.
Sept. 21, Wednesday.	Registration of new students.
Sept. 22, Thursday.	Instruction begins. President's Annual Address to all students, 12 M.
Oct. 15, Saturday,	Announcement of thesis subjects to the Secretary of the Faculty, Room 11.
Nov. —, Thursday.	Thanksgiving Day.
Dec. 23, Friday.	Christmas recess begins.

WINTER TERM—1899

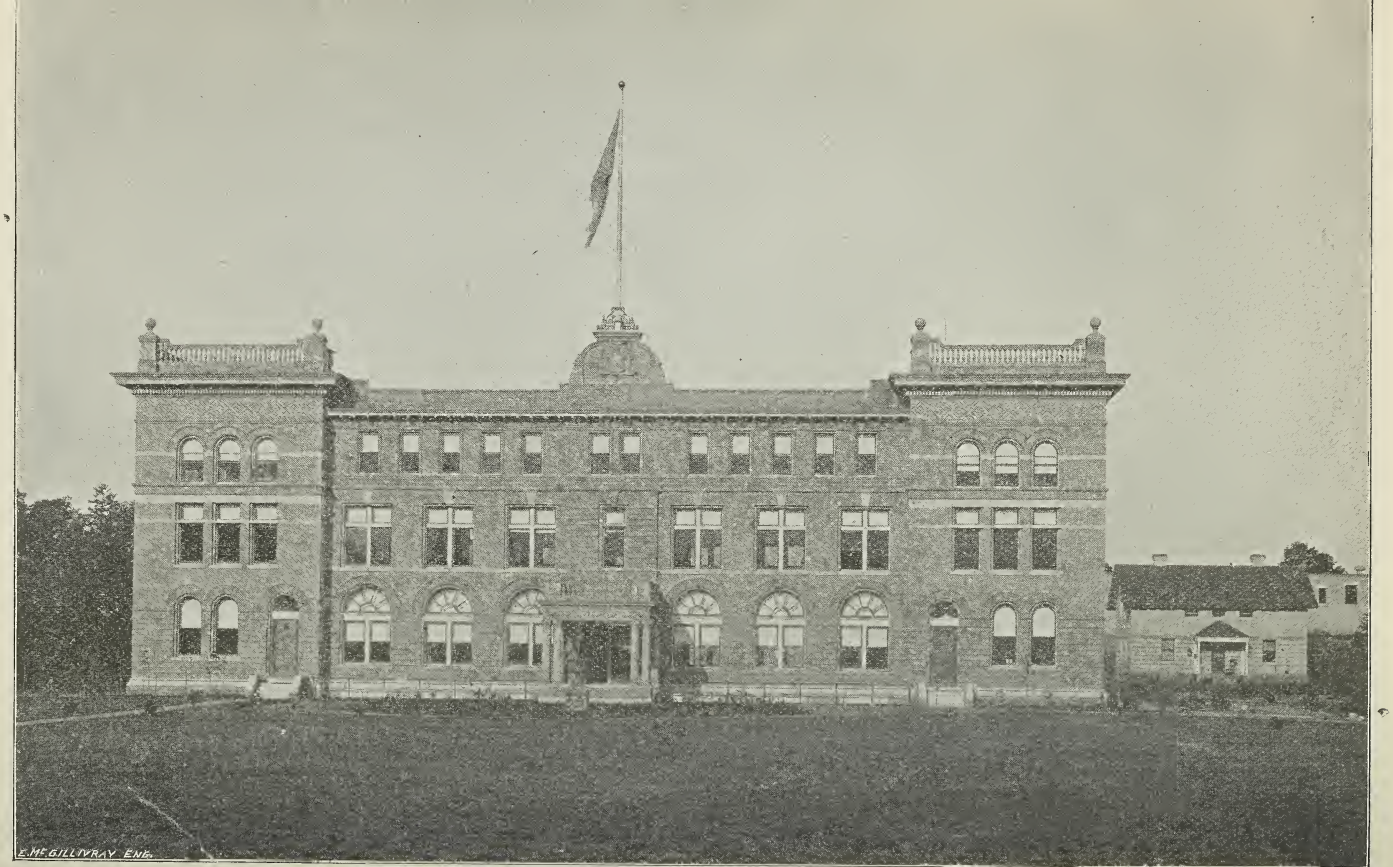
Jan'y 3, Tuesday.	Winter term begins. Registration.
Jan'y 11, Wednesday.	Founder's Day.
Feb'y 22, Wednesday.	Washington's Birthday.
March 25, Saturday.	Spring recess begins.

SPRING TERM—1899

April 4, Tuesday.	Spring term begins. Registration.
May 1, Monday.	Theses due.
May 30, Tuesday.	Decoration Day.
June 6 and 7, Tue. and Wed.	Examination of Candidates for a degree.
June 15, Thursday.	Work ends.
June 16, Friday.	University entrance examinations begin.
June 22, Thursday.	Commencement.

FALL TERM—1899–1900

Sept. 19, Tuesday.	University entrance examinations begin.



NEW YORK STATE VETERINARY COLLEGE--MAIN BUILDING.

"*There is hereby established a State Veterinary College at Cornell University.*" *Laws of New York, 1894, p. 307.*

ANNOUNCEMENT

OF THE

NEW YORK STATE

VETERINARY COLLEGE

AT

CORNELL UNIVERSITY

1898-99

ITHACA, N. Y.
PUBLISHED BY THE UNIVERSITY
1898

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OFFICERS OF ADMINISTRATION
OF THE
NEW YORK STATE VETERINARY COLLEGE

The Board of Trustees of Cornell University, in which are included the following State Officers : His Excellency the Governor, His Honor, the Lieutenant-Governor, the Speaker of the Assembly, the Superintendent of Public Instruction ; also the President of the State Agricultural Society.

VETERINARY COLLEGE COUNCIL.

The President of Cornell University, JACOB G. SCHURMAN.
The Director of the Veterinary College, *Professor* JAMES LAW.
The Treasurer of Cornell University, EMMONS L. WILLIAMS.
Professor WALTER L. WILLIAMS.
Professor SIMON H. GAGE.
CHARLES EZRA CORNELL, *Secretary of the Council.*

FACULTY OF THE
NEW YORK STATE VETERINARY COLLEGE.

JACOB GOULD SCHURMAN, A.M., D.Sc., LL.D., *President.*

JAMES LAW, F.R.C.V.S., *Professor of Principles and Practice of Veterinary Medicine, Veterinary Sanitary Science, and Parasitism.*

WALTER L. WILLIAMS, D.V.S., *Professor of Principles and Practice of Veterinary Surgery, Obstetrics, Zoötechny, and Jurisprudence.*

PIERRE AUGUSTINE FISH, D.Sc., D.V.S., *Assistant Professor of Comparative Physiology, Pharmacology and Therapeutics.*

VERANUS ALVA MOORE. B.S., M.D., *Professor of Comparative Pathology and Bacteriology, and of Meat Inspection.*

SIMON HENRY GAGE, B.S., *Professor of Microscopy, Histology and Embryology.*

GRANT SHERMAN HOPKINS, D.Sc., *Assistant Professor of Veterinary Anatomy and Anatomical Methods.*

BENJAMIN FREEMAN KINGSBURY, A.B., Ph.D., *Instructor in Microscopy, Histology and Embryology.*

RAYMOND CLINTON REED, Ph.B., *Instructor in Comparative Pathology and Bacteriology.*

——— ———, *Demonstrator of Anatomy.*

PROFESSORS AND TEACHERS IN CORNELL UNIVERSITY WHO FURNISH INSTRUCTION TO VETERINARY STUDENTS.

GEORGE CHAPMAN CALDWELL, B.S., PH.D., *Professor of Agricultural, and Analytical Chemistry.*

ISAAC PHILLIPS ROBERTS, M.AGR., *Professor of Agriculture.*

WILLIAM RIDGELY ORNDORFF, A.B., PH.D., *Assistant Professor of Organic and Physiological Chemistry.*

HENRY HIRAM WING, M.S., *Assistant Professor of Animal Industry and Dairy Husbandry.*

FREDERICK LAWRENCE KORTRIGHT, D.SC., *Instructor in Chemistry.*

VETERINARY COLLEGE DIRECTORY.

The President of the University, JACOB G. SCHURMAN, 2 Morrill Hall.

The Dean of the Veterinary College, *Professor*, JAMES LAW, Room 2, s. e. corner, 1st floor of the Veterinary College.

Professor WALTER L. WILLIAMS, Room 3, n. w. corner, 1st floor.

Professor PIERRE A. FISH, Room 11, n. w. corner, 2d floor.

Professor GRANT S. HOPKINS, Room 12, n. e. corner, 2d floor.

Professor VERANUS A. MOORE, Room 13, s. w. corner, 3d floor.

Professor SIMON H. GAGE, Room 14, s. e. corner, 3d floor.

Instructor B. F. KINGSBURY, Room 18, n. e. corner 3d floor.

Instructor RAYMOND C. REED, Room 17, n. w. corner, 3d floor.

Veterinary College Clerk, CHARLES EZRA CORNELL, Room 1, s. w. corner, 1st floor.

The Stud Groom, GEORGE I. BOVIER, Cottage east of Main Building (see plan, p. 7).

FOUNDATION.

The New York State Veterinary College was established by act of the State Legislature in 1894. "There is hereby established a State Veterinary College at Cornell University," Laws of New York 1894, p. 307. By action of the Board of Trustees of Cornell University, June 10, 1894, the location of the College upon the University Campus was authorized. It was further enacted that while the University does not undertake any financial responsibility for the buildings, equipment or maintenance of the College, it does consent to furnish instruction upon such subjects as are or shall be in its curriculum upon such terms as may be deemed equitable.

By further acts of the Legislature provision for the buildings, equipment and maintenance of the College were made and finally in 1897, by "An act to provide for the administration of the State Veterinary College, established by chapter 153 of the laws of 1894," it was enacted that the Trustees of Cornell University should be entrusted with the administration. (For officers of administration, see p. 3).

OBJECTS OF THE INSTITUTION.

As stated in the act to provide for the administration of the State Veterinary College: "*The State Veterinary College, established by chapter 153 of the laws of 1894, shall be known as the New York State Veterinary College. The object of said veterinary college shall be: to conduct investigations as to the nature, prevention and cure of all diseases of animals, including such as are communicable to man and such as cause pizootics among live stock; to investigate the economical questions which will contribute to the more profitable breeding, rearing and utilization of animals; to produce reliable standard preparations of toxins, antitoxins and other products to be used in the diagnosis, prevention and cure of diseases and in the conducting of sanitary work by approved modern methods; and to give instruction in the normal structure and function of he animal body, in the pathology, prevention and treatment of animal diseases, and in all matters pertaining to sanitary science as applied to live tock and correlatively to the human family.*"

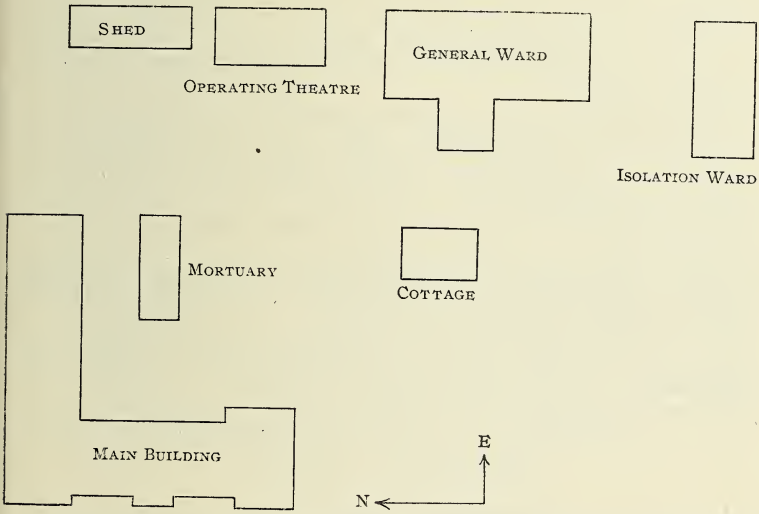
The New York State Veterinary College was therefore founded to aise the standard of veterinary instruction and investigation to the level of the most recent advances in biology and medicine. The number of farm animals in this State (9,450,000), and their value ($131,200,000), with a yearly product, in milk alone, of over 5,000,000,000 gallons, give some idea of the great interest at stake in the matter of live stock. For the United States a value in live stock of, approximately, $2,000,000,000, and a yearly sale, in Chicago alone, of $250,000,000 worth, bespeak the need of all that learning and skill can do for the fostering of this great industry. Another consideration is that the normal permanent fertilization of the soil is dependent on the live stock kept, and that where there is a deficiency of animals, the productiveness of the land is steadily exhausted ; so that the health and improvement of animals and the fostering of animal industry, lie at the very foundation of our national wealth. Another, and no less potent argument, for the highest standard of veterinary education, is its influence on the health of the human race. With a long list of communicable diseases, which are common to man and beast, and with the most fatal of all human maladies—tuberculosis—also the most prevalent affection in our farm herds in many districts, it is to the last degree important that measures for the extinction of such contagion in our live stock should receive the best attention of the most highly trained experts.

To justify the liberality of the State in creating this seat of learning, it will be the aim of the College to thoroughly train a class of veterinarians for dealing with all disease and defects that depreciate the value of our live stock, and with the causes which give rise to them ; to recognize and suppress animal plagues, which rob the stock owner of his profits, and cause widespread ruin ; to protect our flocks and herds against pestilences of foreign origin, and to protect human health and life against diseases of animal origin. It will further aim, so far as it has the means and opportunity, at establishing a center of investigation, looking towards such improvements in the breeding, care and management of animals as may enhance their market value and make returns more speedy and profitable ; towards discoveries in therapeutics, and the immunization of animals and men from contagion ; and towards the production of organic compounds to be employed in diagnosis, treatment and immunizing. So much has been recently discovered in these directions, and present knowledge points so unmistakably to coming discovery, that to neglect this field at the present time would be decidedly reprehensible. Apart from discovery, the mere production of reliable articles of these organic products which are coming into increasing demand by the State and private practitioner, for prevention, diagnosis and treatment, is an object not to be lightly set aside. The combination in one institution of educational facilities with scientific investigation, and the production of the organic extracts to be employed in modern medical methods, is a feature calculated to insure the best work in all departments, and the most exceptional advantages for the diligent student.

LOCATION AND BUILDINGS.

The New York State Veterinary College is located at Ithaca, on the campus of Cornell University, fronting on East Avenue, and facing the University buildings. Electric cars on East Avenue convey students and visitors to any part of the city. Ithaca, with its population of 12,000, is situated at the head of Cayuga Cake, 262 miles distant from New York City, and on the lines of the Delaware, Lackawanna and Western, the Lehigh Valley, and the Elmira, Cortland and Northern railroads. The University grounds are half a mile from the business center of the city and 400 feet higher, commanding a view of 30 miles of valley and lake. They comprise 270 acres, of which 140 are used by the department of agriculture, and furnish home facilities for clinics and zoötechnics. On the campus of 80 acres are 36 professors' houses, 5 fraternity houses, and over 30 University and College buildings.

The BUILDINGS for the State Veterinary College are seven in number, as follows :



The MAIN BUILDING, 142 feet by 42 feet and three stories high, overlooks East Avenue and an intervening park of 220 feet by 300 feet. The walls are of dull yellowish buff pressed brick, on a base of Gouverneur marble ; window and door facings of Indiana limestone, and terra cotta ornamentation. On the first floor are the museum and rooms of the dean and professor of surgery and obstetrics, and business office (Plate I). The second floor is devoted to the upper part of the museum, a lecture room, a temporary laboratory of Physiology and Pharmacology, reading room, library and rooms of professors (Plate II). The third floor is devoted to the laboratories of pathology and bacteriology and of microscopy, histology and embryology (Plate III).

Connected with the main building and forming its EAST WING is a structure of 90 feet by 40, and one story high. This contains the anatomical laboratories, and the lecture room of anatomy, medicine and surgery. Its floors are of impermeable cement, the walls lined by enameled white brick, and the ceilings covered with sheet steel (Plate I).

The second extension from the main building is the BOILER AND ENGINE ROOM, where power is generated for heating and ventilation.

The SURGICAL OPERATING THEATRE is a separate building in the rear of the main building, and is furnished with room for forge, instruments, water heater, etc. The lighting and equipment, and the facilities for demonstration, have been specially attended to (Plate I).

The GENERAL PATIENT'S WARD, 100 feet by 31, is furnished with box and other stalls, heating apparatus, baths and all necessary appliances. The floor is of impermeable cement, and the ceilings of painted sheet steel. There is also a fodder room of 20 by 30 feet (Plate VI).

The ISOLATION WARD 54 feet by 15, has its stalls absolutely separated from one another and each opening by its own outer door. It has the usual impermeable floor, with walls of vitrified brick and painted sheet steel ceilings.

The MORTUARY BUILDING has an impermeable floor, walls of enameled brick and painted steel plate ceilings, and is fitted with every convenience for conducting post mortem examinations and preparing pathological specimens.

The SHED 51 by 20 feet, next the operating theatre is devoted to clinical uses.

These, with a cottage for the stud groom, complete the list of State buildings erected for the Veterinary College. The equipment has been made very complete both for educational uses and original research.

For a more detailed account of the equipment and the facilities for instruction see "Departments, methods and facilities," pp. 22-37.

ADMISSION TO THE NEW YORK STATE VETERINARY COLLEGE.

ADMISSION ON CERTIFICATE.

For admission the candidate must possess at least the preliminary education required by the laws of New York (Laws of 1895, Ch. 860). As evidence that the requirements have been fulfilled, the regents issue "Veterinary Student Certificates," and one of these must be filed with the Director of the college.

Briefly stated the legal preliminary educational requirement for admission is that the candidate must have satisfactorily completed a course requiring at least 48 academic, Regents' counts in a registered academy or high school, or he must have had a preliminary education considered and accepted by the Regents as fully equivalent. A student may be admitted conditionally to a veterinary college who is not deficient in more than 12 of the 48 academic counts, but the deficiency must be made up before beginning the second year of professional study, if that study is to count toward a degree.

The Regents will accept as fully equivalent to the required academic course any one of the following:

1. A baccalaureate degree from the academic department of any college or university of recognized standing.

2. A certificate of having successfully completed at least one full year's course of study in the collegiate department of any college or university, registered by the Regents as maintaining a satisfactory standard.

3. A certificate of having passed in a registered institution examinations equivalent to the full collegiate course of the freshman year or to a completed academic course.

4. Regents' pass cards for any 48 academic counts or any regents' diploma.

5. Certificate of graduation from any registered gymnasium in Germany, Austria or Russia.

6. A certificate of the successful completion of a course of five years in a registered *ginnasio* and three years in a *liceo.*

7. The bachelor's degree in arts or science, or substantial equivalents from any registered institution in France or Spain.

8. Any credential from a registered institution, or from the government in any state or country which represents the completion of a course of study equivalent to graduation from a registered New York high school or academy or from a registered Prussian gymnasium.

(For full information concerning the education necessary to obtain the "Veterinary Student Certificate" or for the acceptance as equivalents of work done in the academies or high schools of this or of other states, not under the Regents, address Examination Department, University of the State of New York, Albany, N. Y.)

ADMISSION ON EXAMINATION.

For the present, students with a "Regents' Veterinary Student Certificate" will be admitted without further examination. For those not possessing such a certificate, admission may be granted to students who pass Cornell University entrance examinations as follows: (The Veterinary College Faculty does not hold entrance examinations. All entrance examinations are given by the Faculty of Arts and Sciences):

The following, representing an equivalent of 24 regents' counts, must be passed by every one trying the examination: (The number of counts each subject represents is given in parenthesis).

English (8). Geography, physical and political (2). Physiology and Hygiene (2). Drawing (2). American History and Civics (2). Plane Geometry (4). Algebra (4).

For an equivalent of the remaining 24 regents' counts the applicant may elect a sufficient number from any combination of the following:

Elementary French (4). Elementary German (4). Advanced French (6). Advanced German (6). Entrance Greek (11). Latin, Cæsar and Grammar (8). Latin, Vergil, Cicero and Composition (7). Physics (4). Chemistry (4). Botany (4). Geology (4). Zoology (4).

The statements below are designed to give an idea of what is expected under each subject.

English: One hour of examination is assigned to answering questions upon the books marked *A*. Two more hours are occupied with writing three essays (250 words each) upon subjects taken from the books marked *B*.

The books prescribed for 1898 are: *A*. Milton, Paradise Lost, Books i and ii; Pope, Iliad, Books i and xxii; The Sir Roger de Coverly Papers in the Spectator; Goldsmith, The Vicar of Wakefield; Coleridge, The Ancient Mariner; Southey, Life of Nelson; Carlyle, Essay on Burns; Lowell, The Vision of Sir Launfal; Hawthorne, The House of the Seven Gables. *B*. Shakespeare, Macbeth; Burke, Conciliation with America; DeQuincey, Flight of a Tartar Tribe; Tennyson, The Princess.

For 1899: *A*. Dryden, Palamon and Arcite; Pope, Iliad, Books i, vi, xxii, xxiv; The Sir Roger de Coverly Papers in the Spectator; Goldsmith, The Vicar of Wakefield; Coleridge, The Ancient Mariner; DeQuincey, The Flight of a Tartar Tribe; Cooper, The Last of the Mohicans; Lowell, The Vision of Sir Launfal; Hawthorne, The House of the Seven Gables. *B*. Shakespeare, Macbeth; Milton, Paradise Lost, Books i and ii; Burke, Conciliation with America; Carlyle, Essay on Burns.

For 1900: *A*. Dryden, Palamon and Arcite; Pope, Iliad, Books, i, vi, xxii, xxiv; The Sir Roger de Coverly Papers in the Spectator; Goldsmith, The Vicar of Wakefield; Scott, Ivanhoe; DeQuincey, The Flight of a Tartar Tribe; Cooper, The Last of the Mohicans; Tennyson, The Princess; Lowell, The Vision of Sir Launfal. *B*. Shakespeare, Macbeth; Milton, Paradise Lost, Books i and ii; Burke, Conciliation with America; Macaulay, Essays on Milton and on Addison.

The object of the examination is to test the candidate's ability to express himself clearly and correctly; also, to test his familiarity with the works prescribed.

No candidate markedly deficient in English will be admitted to any course in the University.

Geography, Political and Physical: As much as is contained in the larger school geographies, and in Tarr's "Physical Geography."

Physiology and Hygiene: The equivalent of Martin's "The Human Body" (briefer course), and of Wilder's "Health Notes" and "Emergencies." The treatises of Hutchinson, Huxley, Jenkins, Steeles, and Walker are accepted as equivalents of Martin.

[In the next Register the above list will probably include only the last editions of the secondary and short treatises of Jenkins, Martin, and Wilder, but recent works intended for use in colleges will be accepted as equivalents].

Drawing: To meet the requirement in drawing the student should have had a thorough training of the hand and eye in outline drawing from natural and conventional forms; and he should be master of the principles of perspective and their application in the drawing of geometrical objects. The study of light and shade in models and from nature should be sufficient to enable him to sketch with accuracy and rapidity any of the simple forms and compositions that may be required. As a part of the examination the work of the student, certified by the teacher, should be submitted.

American History with the Elements of Civil Government: It is expected that the study of American History will be such as to show the development and origin of the institutions of our own country; that it will, therefore, include the colonial beginnings; and that it will deal with the period of discovery and early settlement sufficiently to show the relation of peoples on the American continent, and the meaning of the struggle for mastery.

(*The following requirements in Mathematics are the same as those agreed upon by the Conference of representatives from Columbia, Harvard, Pennsylvania, Princeton, Yale and Cornell Universities*).

Plane Geometry: Including the solution of simple original exercises, numerical problems, and questions on the metric system; as much as is contained in the larger American and English text-books.

Algebra: Factors, common divisors and multiples, fractions, equations of the first degree with one or more unknown quantities, involution including the binomial theorem for positive entire exponents, evolution, the doctrine of exponents, radicals and equations involving radicals, quadratic equations of one or two unknown quantities and equations solved like quadratics, ratio and proportion, and putting problems into equations, and including radicals; as much as is contained in the larger American and English text-books.

[In the fundamental operations of Algebra, such as multiplication and division, the management of brackets, the solving of numerical and literal equations of the first and second degrees, the combining and simplifying of fractions and radicals, the interpretation and use of negative quantities and of 0 and ∞, the putting of problems into equations—the student should have distinct notions of the meaning and the reason of all that he does, and be able to state them clearly in his own language; he should also be able to perform all these operations, even when somewhat complex, with rapidity, accuracy, and neatness; and to solve practical problems readily and completely. In his preparatory study he is advised to solve a great many problems, and to state and explain the reasons for the steps taken.

In Geometry he should learn the definitions accurately, whether in the language of the text-book or not, and in proving a theorem or solving a problem he should be able to prove every statement made, going back step by step until he rests upon the primary definitions and axioms. He should be able to apply the principles of geometry to practical and numerical examples, to construct his diagrams readily with rule and compass, and to find for himself the solutions of simple problems and the demonstrations of simple theorems. To cultivate this power of origination, he should always, before reading the solution or proof given in his text-book, try to find out one for himself, making use, if necessary, of his author's diagram; and if successful, he should compare critically his own work with his author's and see wherein either is the better. Besides oral recitations, he is advised to write out his demonstrations, having regard both to the matter and to the form of his statements; and when written he should carefully study them to make sure, first, that he has a complete chain of argument, and secondly, that it is so arranged that without defect or redundance one step follows as a logical consequence of another].

Elementary French or Elementary German as below.

(*The following requirements for admission to Cornell University in Elementary French and Elementary German are the same as those agreed upon by the Conference of representatives from Columbia, Harvard, Pennsylvania, Princeton, Yale, and Cornell Universities*).

Elementary French: (a) The translation at sight of ordinary nineteenth century prose. It is important that the passages set be rendered into clear and idiomatic English. It is believed that the power of translating at sight ordinary nineteenth century prose can be acquired by reading not less than four hundred duodecimo pages from the works of at least three different authors. Not more than one-half of this amount ought to be from works of fiction. This number of pages is to include not only prepared work, but all sight reading done in class. (b) The translation from English into French of sentences or of a short connected passage to test the candidate's familiarity with elementary grammar. Elementary grammar is understood to include the conjugations of verbs, of the more frequent irregular verbs, such as aller, envoyer, tenir, pouvoir, voir, vouloir, dire, savoir, faire, and those belonging to the classes represented by ouvrir, dormir, connaître, conduire, and craindre; the forms and positions of personal pronouns, the uses of other pronouns and of possessive, demonstrative, and interrogative adjectives; the inflection of nouns and adjectives for gender and number, except rare cases; the uses of articles, and the partitive constructions.

Pronunciation should be carefully taught and pupils be trained to some extent to hear and understand spoken French. The writing of French from dictation is recommended as a useful exercise.

For examination no specific authors or works are designated. An examination in pronunciation and the writing of French from dictation will be included. All applicants for admission are required to present a statement from their teacher mentioning the text-books used and the authors read, including the number of pages translated from French into English and English into French.

Elementary German: (a) The rudiments of grammar, and especially these topics; The declension of articles, adjectives, pronouns, and such nouns as are readily classified; the conjugation of weak and of the more usual strong verbs; the commoner prepositions; the simpler uses of the modal auxiliaries; the elementary rules of syntax and word order. The proficiency of the applicant may be tested by questions on the above topics and by the translation into German of simple English sentences. (b.) Translation at sight of a passage of easy prose containing no rare words. It is believed that the requisite facility can be acquired by reading not less than two hundred duodecimo pages of simple German.

Practice in pronunciation, in writing German from dictation, and in the use of simple German phrases in the class room is recommended.

For examination no specific authors or works are designated. An examination in pronunciation and the writing of German from dictation may be included. All applicants for admission are required to present a statement from their teacher mentioning the text-books used and the authors read, including the number of pages translated from German into English, and English into German.

In *Advanced French* or *Advanced German:*

(*The following requirements for admission to Cornell University in Advanced French and Advanced German are the same as those agreed upon by the Conference of representatives from Columbia, Harvard, Pennsylvania, Princeton, Yale, and Cornell Universities*).

Advanced French: (a) The translation at sight of standard French. It is important that the passages set be rendered into clear and idiomatic English. It is believed that the necessary proficiency in translation at sight can be acquired by reading, in addition to the elementary work, not less than six hundred duodecimo pages of prose and verse from the writings of at least four standard authors. A considerable part of the amount read should be carefully translated into idiomatic English. (b) The translation into French of a connected passage of English prose. Candidates will be expected to show a thorough knowledge of accidence and familiarity with the essentials of French syntax, especially the uses of tenses, moods, prepositions, and conjunctions. Careful attention should be paid to pronunciation and the uses of spoken French.

For examination no specific authors or works are designated. An examination in pronunciation and the writing of French from dictation will be included. All applicants for admission are required to present a statement from their teacher, mentioning the text-books used and the authors read, including the number of pages translated from French into English and English into French.

Advanced German : (a) More advanced grammar. In addition to a thorough knowledge of accidence, of the elements of word formation, and of the principal uses of prepositions and conjunctions, the candidate must be familiar with the essentials of German syntax, and particularly with the uses of modal auxiliaries and the subjunctive and infinitive moods. The proficiency of the applicant may be tested by questions on these topics, and by the translation into German of easy connected English prose. (b) Translation at sight of ordinary German. It is believed that the requisite facility can be acquired by reading, in addition to the amount mentioned under elementary German (see p. 13), at least five hundred pages of classical and contemporary prose and poetry. It is recommended that not less than one-half of this reading be selected from the works of Lessing, Schiller, and Goethe.

It is recommended that the candidate acquire the ability to follow a recitation conducted in German and to answer in that language questions asked by the instructor.

For examination no specific authors or works are designated. An examination in pronunciation and the writing of German from dictation may be included. All applicants for admission are required to present a statement from their teacher, mentioning the text-books used and the authors read, including the number of pages translated from German into English and English into German.

Greek : candidates are examined on (1) Grammar. A thorough knowledge of the common forms, idioms and constructions and of the general grammatical principles of Attic prose Greek, to be tested by an examination on a prescribed portion of Xenophon (for the next five years Xenophon's Anabasis, Books I and II). The test is to consist in part of questions, in part of simple sentences set for translation into Greek ; it may include also translation from Greek into English. (2) Attic prose at sight. Ability to translate at sight a passage adapted to the proficiency of those who have read not less than 130 Teubner pages of Attic prose. The candidate is expected to show in his translation accurate knowledge of the forms and structure of the language, and an intelligent comprehension of the whole passage. (3) Homer. Ability to translate a passage from some prescribed portion of Homeric poems (for the next three years), Iliad, Book I and Book II, vv. 1–493), and to answer questions designed to test the candidate's understanding of the passage, as well as questions upon poetic forms, constructions, and prosody.

Latin : candidates are examined (1) in the following authors : with questions on subject-matter, constructions, and the formation and inflection of words; Vergil, six books of the Æneid, with the prosody; Cicero, six Orations, including the four against Catiline; the translation at sight of passages adapted to the proficiency of candidates who have studied Latin in a systematic course of at least five lessons a week for three years, the passages to be selected from Nepos or Cæsar; and (2) Latin composition based on Bennett's or Jones's Latin Composition.

Physics: Students offering physics for entrance must show an acquaintance with the more important phenomena and with the principles involved in the explanation of them. They must, in addition to a year's work with the text-book, have completed a year of laboratory practice and must be prepared to work simple numerical problems upon the laws of falling bodies; upon the pendulum; upon properties of liquids and gases, including the determination of density; upon thermometry and calorimetry, including specific heats and heats of fusion and liquefaction; upon the relations of current and electromotive force and resistance; upon velocity, wave length and resonance in sound; upon refractive indices, focal lengths and the size and position of images in optics. The student must understand and be able to use the metric system in measurement and computation.

The laboratory work offered must be chiefly quantitative in character, and must consist of at least forty exercises or experiments of the character given in Nichols' "Outlines of Physics," or other works similar to this in grade and method. The laboratory work prescribed above must have been performed by the student individually, in evidence whereof he must present his laboratory notebook at the time of examination. He must, moreover, be prepared to describe intelligently the method pursued and the results obtained in the experiments which he has performed.

Chemistry: Remsen's "Introduction to the Study of Chemistry," or its equivalent, is to be taken as the basis of the examination. In addition to that, laboratory practice must have been taken with the same book as a guide, or some other book of a similar character, representing eighty hours of actual work; the notes upon this, carefully written out, must be presented at the time of the examination, and this record should be endorsed by the teacher at the close of each day's work. Problems in the calculation of gas volumes, and in stoichiometry will be included in the examination. Finally the applicant will be examined on such an amount of qualitative analysis as can be accomplished in eighty hours of actual practice in the laboratory. A carefully written and endorsed note book of this work must also be presented at the time of the examination.

Botany: The student should aim to acquire a knowledge of the general laws and fundamental principles of plant nutrition, assimilation, growth, etc., as exemplified by plants chosen from the different groups, as well as the general comparative morphology and the broader relationships of plants.

The following brief synopsis will suggest the topics and methods of study:

Study protoplasm in plants representing different groups, as spirogyra, mucor, nitella, and in the tissues of some of the higher plants, in order to demonstrate that this substance, though occurring in widely different plants, is fundamentally the same, and reacts in a similar manner to treatment with certain simple reagents.

Study absorption and osmose in plant cells, employing such plants as spirogyra, mucor, the cells of some higher plant as the beet, and in the root hairs of a seedling plant; test the effect of salt solutions in plasmolyzing the cells of these plants, then the restoration of turgescence in the same cells, and the movement of the protoplasmic membrane to demonstrate the part it plays in the process of absorption in plants.

Study nutrition by comparison of soil and water cultures in seedlings; study also root pressure; turgidity in plant parts and cell masses; transpiration; the path of movement of liquids in higher plants, and the general structure correlated with these processes; study nutrition of parasites (carnation rust, dodder), of mushroom.

Study the movement of gases in carbon assimilation as shown by spirogyra, vaucheria, elodaea, etc., in respiration as shown in germinating seeds; study forms of chlorophyll bodies and the formation of starch, noting the parts of the plant where these processes take place, and using for comparison, spirogyra, zygnema, vaucheria, oedogonium; liverworts like riccia, marchantia, cephalozia; mosses like funaria, mnium; and a few of the higher plants, including lemna.

Study growth of seedlings with reference to increase in length and diameter, direction of growth; irritability shown by movement of parts in response to stimuli. (The topics as above arranged, as far as possible represent progression of function, and the study of the lower plants throws great light on the processes in the higher forms, and at the same time familiarizes the student with a few of these lower forms).

Study general morphology, reproduction and fruiting in the different groups. Examples are suggested as follows: Among the algae,—spirogyra, vaucheria, oedogonium, coleochatae; among the fungi,—mucor, saprolegnia, puccinia (wheat rust), one of the erisypheae (powdery mildews), mushrooms; among the liverworts,—riccia, marchantia, cephalozia; among the mosses,—funaria, mnium, or polytrichum; among fern plants,—a fern, equisetum, selaginella, isoetes; among gymnosperms,—one of the pines; among angiosperms,—one of the monocotyledons and a dicotyledon. (In this study it will be found useful in dealing with the lower plants to use the same plant as often as possible for the different topics, since fewer new names will be introduced and the student can concentrate the mind upon processes and structures. The plants suggested are chosen for a purpose since they represent progression of form and structure. The student should study all the stages suggested from the actual material using text-books only as aids).

In the algae, liverworts, mosses and ferns the organs of reproduction can usually be easily studied by beginners if material is preserved at the proper stages in advance, or it may be grown as wanted. In the higher plants the study of the reproductive organs is attended with difficulty. Here and in other difficult topics the studies should be supplemented by demonstrations on the part of the teacher, and by collateral reading.

Study the special morphology of the higher plants by a careful examination of types in the families of angiosperms. The following are suggested,—ranunculaceae, cruciferae, leguminosae, rosaceae, umbelliferae, compositae, labiatae, cupuliferae, salicaceae, liliaceae, araceae, cyperaceae, geraniaceae, orchidaceae.

As a part of the examination, careful notes and drawings must be presented as evidence that the work on the several topics outlined above has been faithfully and successfully accomplished. Those who wish to prepare an herbarium in addition, may present the same as partial evidence, but weight will be given to this only when the herbarium is prepared with a view of illustrating some definite problem either of relationship or of ecological study, as plant distribution in relation to soil, topography of the country, plant formations, etc.

Geology: To meet the requirement in geology it will be necessary to devote at least five periods a week for one year to the study. Of this time not less than two periods a week must be given to laboratory and field work. The text-book used should cover the ground treated in such books as Scott's "Introduction to Geology," Geike's "Class Book of Geology" and Tarr's "Elementary Geology;" but in addition to the subjects included in these books the student will be expected to do collateral reading in such works of reference as Geike's "Text-book of Geology," Dana's "Manual of Geology," Lyell's "Principles of Geology" and LeConte's "Elements of Geology." It would also be well to refer to books on specific subjects, such as Dana's "Characteristics of Volcanoes," Dana's "Corals and Coral Islands," Russell's "Volcanoes," Russell's "Lakes," Wright's "Ice Age in North America," Russell's "Glaciers," etc. The examination will test not merely the knowledge upon the text-book itself, but also the range and thoroughness of the work done with reference books. Carefully written digests of the parts read in the reference books, if certified by the teacher, may be offered in evidence of the amount of work done with them.

Much stress will be placed upon that part of the examination testing the laboratory and field work. This will consist in part of the notes upon that work, certified by the teacher. This laboratory and field work should in large measure be made a study of the home geology; and evidence of good work in this connection will be necessary in order to pass the subject.

In the laboratory the common minerals and rocks should be studied so that the pupil may identify them without difficulty. Photographs of geological phenomena should also be studied, and training be given in the interpretation of geological maps. An elementary knowledge of paleontology should be obtained by the study of some of the common fossils; and if the school is situated in a fossiliferous region, field work in stratigraphic geology should be included, together with the collection of fossils and their identification in the laboratory. Some hints concerning the nature of the work expected in the laboratory and the field may be gained from Tarr's "Suggestions for Laboratory and Field Work in High School Geology."

Zoology: The examination in zoology will consist of two parts as follows:

I. *Invertebrate Zoology:* The candidate must have devoted the equivalent of five periods a week for at least one half year to the study of invertebrate zoology; and the greater part of this work must have been laboratory practice in the observation of living forms and in dissection. His laboratory notes and drawings endorsed by the teacher will be required at the time of the examination as evidence of the nature of this part of the work. This laboratory practice should include a study of at least thirteen of the forms named in the following list: amœba, paramœcium, hydra, sea-anemone, star-fish, sea-urchin, earthworm, cray-fish, lobster, spider, millipede, centipede, locust (grasshopper), dragon-fly, squash-bug, butterfly, bumblebee, clam, snail, and squid.

The laboratory work must be of the character given in Needham's "Elementary Lessons in Zoology," Colton's "Practical Zoology," or other works similar to these in grade and method. In addition to the above books, the student should have access to some advanced work like Parker and Haswell's "Text-book of Zoology," for reference.

The examination will call for a discussion of the habitat, mode of life, and post-embryonic development (transformations) as well as of the morphology of the forms studied.

II. *Vertebrate Zoology:* To meet the requirement there should be submitted drawings and notes in evidence of the dissection of the viscera of forms representing groups as follows:—Mammals (cat, dog, monkey, rabbit, rat or opossum); Birds (common fowl, pigeon, or other convenient form); Reptile (serpent, and either a turtle or an alligator); Batrachian (salamander, toad or frog, and a tadpole); "Fishes" (sturgeon, amia or gar; cat-fish, sucker, carp or other soft rayed fish; bass, perch or other spiny rayed fish; shark or ray; lamprey or hag; lancelet (amphioxus), and a simple tunicate, i. e., boltenia or molgula).

Particular attention should be paid to the brain, the heart and the respiratory apparatus. The muscles of the arm and leg should be dissected upon a mammal, a bird, and a reptile, and the differences pointed out. There must be prepared a skeleton (which need not be mounted) of a mammal, bird or fish; and skulls of at least five other vertebrates. (In preparing these skulls remember that the hyoid goes with the skull). The skulls, with proper labels, must be submitted at the examination.

Two mammals should be compared in respect to their habits, food, mode of locomotion, etc.; likewise two birds, two reptiles, two batrachians, and two "fish."

Besides the practical work above indicated, the student must gain from lectures or from text-books designed for high schools or colleges (e. g., Parker & Haswell's "Text-book of Zoology," 1897), a comprehensive knowledge of the members of the classes or groups represented by the forms studied as described above. This knowledge must include their geographical distribution, habits and relation to human beings, whether beneficial or injurious, directly or indirectly; the relations of the young to the parent in respect to oviparity and viviparity and the exceptions to the general rules; the form and structure of the red blood corpuscles and the exceptions to the general rules. In case some point of information in your note-book is derived from a text-book or a cyclopaedia, give an exact reference to the source of the information.

ADMISSION TO ADVANCED STANDING.—Applicants for admission to advanced standing as members of the 2d or 3d year class must present the necessary educational qualifications for admission to the first year class (see p. 8) and must pass a satisfactory examination in all the work gone over, or offer satisfactory certificates of the completion of such work in other veterinary schools whose entrance requirements and courses of study are equivalent to those of this college. No person will be admitted to any advanced class except at the beginning of the college year in September.

Applicants for advanced standing from other veterinary colleges must send or present letters of honorable dismissal, and furnish the Director, Dr. James Law, with a catalog containing the courses of instruction in the institution from which they come with a duly certified statement of the studies pursued and their proficiency therein, and also a statement of the entrance requirements with the rank gained. To avoid delay these credentials should be forwarded at an early date in order that the status of applicants may be determined and information furnished concerning the class to which they are likely to be admitted.

Graduates of veterinary colleges whose requirements for graduation are not equal to those of the New York State Veterinary College may be admitted provisionally upon such terms as the faculty may deem equitable in each case, regard being had to the applicant's previous course of study and attainments. In this connection, attention is called to the legal requirements of academic and professional education for the practice of Veterinary Medicine in the State of New York. (See pp. 8, 41, and Appendix B).

ADMISSION TO GRADUATE WORK.—The ample facilities for graduate work in the New York State Veterinary College, with allied departments in Cornell University, are open to graduates of this institution and of other Veterinary Colleges whose entrance requirements and undergraduate courses are equivalent. (See pp. 8, 20).

RESIDENCE AND REGISTRATION.

Residence in Ithaca is required of all students. For leave of absence during term time application should be made to the Director, Professor Law.

Registration—At the beginning of each term (see calendar for exact day and date) the student must register with the University Registrar, Room 9 A, Morrill Hall. After registering with the University Registrar, he must, on the same day, register with the Secretary of the Faculty, Dr. Fish, Room 11, 2d floor, of the Veterinary College.

REQUIREMENTS FOR GRADUATION.

In order to receive the degree of Doctor of Veterinary Medicine (D.V.M.) the candidate must satisfy all the entrance requirements (pp. 8–9) and successfully pursue the courses named in the schedule of studies given below.

The thesis required in the last year (see schedule) is designed to give the student opportunity to investigate some subject in which he has become particularly interested, and to give him training in presenting the results of the investigation in proper literary form.

A final examination upon all subjects pursued during the entire course will be given during the last week of the third term to all candidates for degrees. (In 1898-99 this examination will occur Tuesday and Wednesday, June 6, 7, 1898).

SCHEDULE OF THE COURSES LEADING TO THE DEGREE OF DOCTOR OF VETERINARY MEDICINE.*

First Year.	1st Term.	2d Term.	3d Term.
Inorganic Chemistry	3. T. or Th., 12	3. T. or Th., 12	3. T. or Th., 12
Anatomy	2. T., Th., 9	2. T., Th., 9	2. T., Th., 9
Dissection	4.	4.	4.
Microscopy and Histology	2. M., W., 8	2. M., W., 8	–
Laboratory	3.	3.	–
Embryology	–	–	3. M., W., F., 8
Laboratory	–	–	2.
Comparative Physiology	1. F., 10	1. F., 10	1. F., 10
Breeds and Breeding	2. M., W., 12	2. M., W., 12	2. M., W., 12

Second Year.	1st Term.	2d Term.	3d Term.
Organic and Physiological Chemistry	2.	2.	2.
Anatomy	1. W., 9	1. W., 9	1. W., 9
Dissection	4.	4.	4.
Comparative Physiology	1. W., 10	1. W., 10	-
Laboratory	2.	-	-
Pharmacology	1. M., 10	1. M., 10	1. M., 10
Pharmacy	-	2.	-.
Therapeutics	-	-	1. W., 10
Medicine	3. M., W., F., 8	3. M., W., F., 8	3. M., W., F., 8
Surgery	5. M.,T.,W.,Th., F.,11	3. M., W., F., 11	-
Obstetrics	-	2. T., Th., 11	4. T., W., Th., F., 11
Jurisprudence	-	-	1. M., 11
Sanitary Science or Parasitism	2. T., Th., 8	2. T., Th., 8	2. T., Th., 8
Bacteriology	1. M., 9	1. M., 9	1. M., 9
Laboratory	2.	2.	2.
Clinics, medicine and surgery	3.	3.	3.

Third Year.	1st Term.	2d Term.	3d Term.
Medicine	3. M., W., F., 8	3. M., W., F., 8	3. M., W., F., 8
Clinics, medicine and surgery	6,	6.	6.
Surgery	5. M., T.,W., Th.. F., 11	3. M., W., F., 11	5. M., T., W., Th., F., 11
Zootechnics	-	2. T., Th., 11	-
Toxicology	-	2.	-
Parasitism or Sanitary Science	2. T., Th. 8	2. T., Th., 8	2. T., Th., 8
Pathology	2. T., Th., 9	1. T., 9	-
Laboratory	-	1.	-
Meat Inspection	-	-	1.T., 9
Laboratory	-	-	1.
Research and Thesis	3.	3.	3.

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*If the hours for lectures, etc., are not given in the schedule, the time will be arranged with the class.

DEPARTMENTS, METHODS AND FACILITIES.

In addition to the departments of the Veterinary College proper ; the resources of the entire University are practically at the disposal of the college by the action of the board of trustees at the time when authorization was given for its location on the campus of the Cornell University (p. 5, under foundation). Among the facilities of the university of especial value to the veterinary college may be mentioned the museums of Vertebrate and Invertebrate Zoölogy including Entomology, of Agriculture, of Botany and of Geology. The Magnificent University Library, with its 200,000 bound volumes, 34,000 pamphlets and 600 current periodicals and transactions, is likewise as freely open to veterinary college students as to other university students (see also Veterinary Library, p. 37).

The Departments, with their special equipment facilities and methods, are given in the order in which the subjects are pursued in the course.

The Courses Required for Graduation are given in the schedule of studies, p 21, but the additional courses offered by the various departments are thought to be of especial value to veterinary students and may be elected by them whenever they have satisfied the requirements.

In all laboratory Courses and clinics two and one-half (2½) actual hours of laboratory practice are required for each hour of credit ; e. g., for a three hour laboratory course, 7½ actual hours of laboratory work are required each week.

CHEMISTRY.

The instruction in chemistry is given in the university chemical building, Morse Hall (plate VII). This building is used solely for chemistry and is fully equipped with modern apparatus and material. The laboratories furnish the most ample accommodation for practical work, and the lectures are fully illustrated by specimens, demonstrations and lantern views. The chemical library, in the building and accessible to students, contains complete sets of all important journals, and is very fully supplied with works of reference and standard books on chemistry and allied subjects.

For a full account of the department with its 39 courses, one may consult the University Register or the special announcement of the chemical department (see 3d page of cover).

COURSES.

These are the courses pursued by veterinary students and must be taken in the order here indicated.

1. Elementary, general inorganic chemistry. Three hours weekly throughout the year. This consists of one lecture (T. or Th. 12), one recitation and one hour of laboratory work. Professors CALDWELL and TREVOR and Instructor KORTRIGHT.

20. Organic chemistry. Fall term. Two hours. (Time to be arranged with the class). Professor ORNDORFF.

45. Physiological chemistry. Winter and spring terms. Two hours. (Time to be arranged with the class). Professor ORNDORFF.

ANATOMY.

The instruction in anatomy is by lectures, recitations and laboratory work, the latter being by far the most important. The objects of the lectures are to present facts of general morphology as related to the horse and other domestic animals; to direct attention, as far as possible, to the correlation of structure and function of the various organs of the body and to emphasize the anatomical relations of those parts most subject to surgical operations. The main reliance, however, is placed upon the work done in the laboratory. Thorough practical knowledge of anatomy can be acquired in no other way, and every student will be required to dissect all the parts of the horse, or ox, and such other of the domestic animals as may prove most expedient, before taking his final examinations.

The courses in anatomy extend through two years. The first year is devoted to the study of the bones, joints, muscles and certain of the viscera; the second year, to the vascular and nervous systems and the organs of special sense.

In the study of the osseous and muscular systems, the skeletons in the laboratory, and the Auzoux models afford valuable assistance. In the museum there are accumulating series of specimens which illustrate, in a typical manner, some of the more important anatomical features of the various domestic animals.

The department of anatomy occupies the whole of the east wing—a structure 90 feet by 40 feet and one story in height (Plate I). The floors are of impermeable cement; the walls are lined by enameled white brick and the ceilings covered with sheet steel. The main laboratory is 54 feet by 40 and 22 feet in height. It is well lighted by skylights and by electricity. It is heated by steam and hot air. The ventilation is nearly perfect, fresh air being forced into the room by large fans situated in the basement. The entire volume of air in the laboratory can be changed every 5 minutes without creating any perceptible draft. This constant supply of abundance of pure air is an especially important feature in a dissecting room. The laboratory is supplied with mounted skeletons and other osteological material, a large refrigerator, set of

Fairbanks scales, weighing either kilograms or pounds, injecting and other laboratory apparatus.

In addition to the general libraries of the University and of the college, (p. 37) there are upon the book shelves, in the laboratory, dictionaries, both English and medical, a complete set of the Reference Handbook of the Medical Sciences, standard text-books of anatomy, physiology, physics, etc., for the special use of the students in the laboratory, as books of reference.

Connected with the main laboratory is a similar one, 22 feet by 22, which is used as a preparation room and as a private laboratory (Plate I).

Opening into the laboratories is a locker room, containing lockers for the accommodation of 150 students, and off from this room are the lavatories, etc. (Plate I).

The city and surrounding country furnish any quantity of anatomical material, and in almost endless variety; horse, ox, sheep and swine, dog, cat, rabbit and guinea-pig, both adult and in all stages of fetal development.

The facilities for the study of anatomy are limited only by lack of preparation and time, on the part of the student.

After finishing the required work, students are encouraged to undertake some piece of original work, in either comparative or surgical anatomy.

COURSES.

Of the following courses, the two first are required of the veterinary students; the others are general courses:

1. General and descriptive veterinary anatomy. Fall, winter and spring. Six hours. Two lectures and laboratory work. T., Th., 9 Dr. HOPKINS and demonstrators.

2. Descriptive veterinary anatomy. Fall, winter and spring. Five hours. One lecture and laboratory work. W., 9. Dr. HOPKINS and demonstrators.

This course must be preceded by course 1.

3. Anatomical methods and gross anatomy. Fall term. Three hours. One lecture and laboratory work. S. 12. Dr. HOPKINS.

4. Advanced anatomy. Winter term. Three hours. One lecture and laboratory work. S., 12. Dr. HOPKINS.

Course 4 must be preceded by course 3 or its equivalent.

5. Human anatomy. Laboratory work throughout the year. Dr. HOPKINS.

This course is open to those who have had one or more of the preceding courses.

6. Research and thesis. Three hours throughout the year. Dr. HOPKINS.

COMPARATIVE PHYSIOLOGY.

It is the aim of this department to select from a wide field of interesting topics, those which will be of greatest use to the student, in preparation for a more complete understanding of *normal* functions, as distinguished from the pathological changes so frequently encountered in the practice of human and veterinary medicine.

The fact that it is essential to know the natural before undertaking the diagnosis of unnatural conditions is thoroughly emphasized.

The lectures are supplemented as fully as possible by diagrams, preparations and experiments.

In additon to the didactic instruction a course in the laboratory is provided, which is intended to supplement and extend the lecture courses. The laboratory of comparative physiology is located, for the present, upon the second floor of the main building (Plate II). It is well lighted and equipped with necessary reagents and apparatus, additions to which are made as needed. Students are rendered every assistance in the comprehension of the fundamental parts of their work without, however, losing sight of the fact that careful observation and self-interpretation are most essential for a proper scientific training. Every encouragement is offered, to those properly fitted, to pursue their work beyond that given in the regular course. As a part of the equipment may be mentioned a kymograph, sphygmograph, induction coil and various batteries, a centrifuge and other apparatus for urinalysis.

To those intending to be teachers, as well as those contemplating the study of human or veterinary medicine, the course will be especially useful as it deals with experiments on the functional changes going on in the human and animal body, the exposition of which, is none the less important because, in many cases, of an elementary nature.

COURSES.

1. Required of the first year veterinary students, and treats of the digestive functions, circulation, respiration, and excretion. The work given in this course precedes quite logically that of Pharmacology and Therapeutics. Lectures, one hour each week through the year. F., 10. Dr. FISH.

2. The functions of the muscular and nervous systems and reproduction are considered in this course, which is a direct continuation of course one. Lectures one hour each week through the fall and winter terms. W., 10. Dr. FISH.

3. Practical work in the laboratory. A large proportion of the work is devoted to the digestive system. Artificial digestive juices are tested upon the various kinds of foods by the student and careful notes kept of the various processes. Those who can devote more than the required time are taught how to make the various digestive extracts. A course in urinalysis is also required in order that students may familiarize them-

selves with some of the more common but important changes occurring during health and disease. Experiments in blood pressure and upon the muscular and nervous systems will be carried on as time and opportunity permit. Fall term. Two hours. M., 2–5, W., 2–4. Dr. FISH.

4. Research and Thesis. Three hours throughout the year. Dr. FISH.

MICROSCOPY, HISTOLOGY AND EMBRYOLOGY.

As indicated by the following courses, this department offers elementary and advanced instruction in the theory and use of the microscope and its accessories, in photo-micrography, in vertebrate histology, and vertebrate embryology; and opportunities for research in all of these subjects.

The rooms for the use of this department are on the third floor, and as shown by the plan (Plates III, V), they are ample and almost perfectly lighted. They consist of a large general laboratory, a research laboratory and the private laboratory of the professor in charge where special demonstrations of difficult subjects are given to small groups of students.

The material equipment consists of a good supply of modern microscopes each one of which is fitted with a low and medium power dry objective and a 2 mm. homogeneous immersion objective. Camera lucidas, polariscopes, micro-spectroscopes, photo-micrographic cameras, and other special apparatus are in sufficient numbers to give each student opportunity for personally learning to use them, and for applying them to any special study in which they are called for. The general and research laboratories are large, and are equipped with microtomes, incubators, aquariums, etc. The collection of histologic and embryologic specimens is extensive and constantly increasing. Full sets of typical specimens are available for study and comparison by the students.

The aim of the department is to bring the student into direct contact with the truths of nature, and hence, while there are lectures to give broad and general views, there is a large amount of laboratory work in which the facts are learned at first hand, and the methods and manipulations necessary for acquiring the facts are practiced by each student. It is recognized that less ground can be covered in a given time in this way, but it is believed, and experience has confirmed the belief, that the intellectual independence and the power to acquire knowledge direct from nature which is gained by this personal work, is of far higher value than the facts and theories that might be learned in the same time from books and lectures alone, or from specimens prepared by some other individual.

This lake region with its rich and varied fauna is especially favorable for investigations in the histology and embryology of all the main groups of vertebrates and the proximity of the abattoirs in the city makes it possible to obtain abundant material for the study of the development of the sheep, cow and pig. The college clinic and the department of anatomy supply an abundance of material for the embryology of the cat and dog so that the opportunities for research upon the development of the domestic animals are excellent. Every encouragement is given for the fullest utilization of these opportunities by students in the preparation of theses and for special investigations.

COURSES.

1. The Microscope and Microscopical Methods. First half of fall term. Two hours. Two lectures and three hours of laboratory work. This course forms the basis for all the subsequent work given by the department. It is also designed to give a knowledge of the theory and use of the microscope and its accessories which would be advantageous for the work of any department where the microscope is employed. M., W., 8. Professor GAGE and Instructor KINGSBURY.

This course counts for two hours for the term, although the work must all be done in the first five weeks.

2. Vetebrate Histology. Last half of fall term (3 hours) and the winter term (5 hours). Eight hours. Two lectures and three hours laboratory work. In this course are given the elements of the fine anatomy of the domestic animals and of man. It includes also methods of histological investigation and demonstration. M., W., 8. Professor GAGE and Instructor KINGSBURY.

This is a continuation of course 1 and is open only to those who have taken course 1, and have taken or are taking courses in anatomy and physiology.

3. Vertebrate Embryology. Spring term. Five hours. Three lectures and two hours of laboratory work. This course deals with the elements and methods of embryology in man, the domestic animals and the amphibia. M., W., F., 8. Professor GAGE and Instructor KINGSBURY.

Course 3 is open only to those who have pursued courses 1 and 2. (The lectures alone may be attended by those who have taken courses 1 and 2 in Physiology and Vertebrate Zoology).

4. Research in Histology and Embryology. Laboratory work with Seminary throughout the year. This course is designed for those preparing theses for the baccalaureate or advanced degrees and for those wishing to undertake special investigations in histology and embryology. Professor GAGE and Instructor KINGSBURY.

Course 4 is open only to those who have taken courses 1, 2 and 3, or their equivalent in some other University. Drawing (course 9, in Mechanical Engineering, or its equivalent) and a reading knowledge of French and German are indispensable for the most successful work in this course.

Subjects for baccalaureate theses should be decided upon if possible during the spring term of the junior year so that material in suitable stages of development and physiologic activity may be prepared.

5. Structure and Physiology of the Cell. Spring term. Two hours. Laboratory work with lectures. This course is designed for advanced students who wish to investigate cytologic problems. Dr. KINGSBURY.

6. Advanced Microscopy. Spring Term. Two hours. Laboratory work with lectures. In this course special instruction will be given in the theory and use of the more difficult and important accessories of the microscope, *e. g.*, the micro-spectroscope, the micro-polariscope, the apertometer, the photo-micrographic camera and the projection microscope. Professor GAGE.

This course is open only to those who have taken course 1, and if photo-micrography is desired, an elementary knowledge of photography like that given in course 9, Department of Physics, is ncecessary.

7. Seminary. There will be a meeting of the department staff and students engaged in research, once in two weeks, for conference and report upon special investigations. (See Veterinary College Seminary, p. 38).

NOTE.—For the work of this department, the student will find a knowledge of Latin and Greek of the greatest advantage. A year's study of Latin, three to five recitations per week, and of Greek, Goodell's Greek in English, or Coy's Greek for beginners, would represent the minimum amount needed. For all courses, the ability to draw well free hand, and a good reading knowledge of French and German are desirable, and for research work almost indispensable.

THE COLLEGE OF AGRICULTURE—BREEDS AND BREEDING.

The College of Agriculture comprises the Departments of General Agriculture; Animal Industry and Dairy Husbandry (Plate VIII.); Horticulture and Pomology; Agricultural Chemistry; General and Economic Entomology and the Agricultural Experiment Station.

The University grounds consist of 270 acres of land, bounded on the north and south by Fall Creek Ravine and Cascadilla gorge respectively. One hundred and twenty-five acres of the arable land are devoted to the use of the Agricultural Department. This part of the domain is managed with a view not only to profit, but also to illustrate the best methods of general agriculture. A four years' rotation is practiced on the principal fields; one year of clover, one of corn, one of oats or barley, and one of wheat. A dairy of twenty cows, a flock of sheep, some fifteen horses and colts, and other livestock are kept upon the farm. Nearly all of these animals are grades, bred and reared with the single view of giving object lessons which can be practiced with profit by the students on their return to their homes. A four story barn provides for housing all the animals, machinery, tools, hay, grain, and manures. The stationary thresher, feed-cutter, chaffer, and other machinery are driven by steam power. The barn also furnishes many facilities for carrying on investigations in feeding and rearing all classes of domestic animals.

The barn is also furnished with a well equipped piggery and tool house. Not far from the main barn have been constructed four buildings with suitable yards and appliances for incubating and rearing domestic fowls.

The agricultural class room is provided with a collection of grains and grasses, implements of horse and hand culture, and various appliances for carrying on instruction and conducting investigations. The whole plant is managed with a view to the greatest economy consistent with the greatest efficiency in imparting instruction.

COURSES.

The courses in the college attended by veterinary students are given by the department of Agriculture proper and are as follows :

3 (in part). The horse, breeds and breeding, feeding, education, care and driving. Fall term. Two hours. M. W. 12. Professor ROBERTS.

10. Animal Industry. Principles of breeding, history and development, improvement and creation of dairy and beef breeds of cattle (Plate VIII); principles of feeding, care, selection and management of dairy and beef cattle. Winter and spring terms. Two hours. Practice, one hour by appointment, for those electing it. M. W. 12. Assistant Professor WING.

PHARMACOLOGY.

(Plate II.)

The term is employed in its comprehensive meaning to include not only the materials of medicine, but their preparation, use and physiological action. Allowing for certain exceptional differences, there is, in general, a great resemblance in the action of drugs in the lower animals and human beings. The efficiency of new drugs is commonly tested upon the lower forms before being applied to man. For a broad and enlightened human practice a medical course dealing with the treatment of lower animals offers a most advantageous preparation.

The more important drugs and preparations as given in the U. S. Pharmacopœia are studied, including the new ones which appear from time to time.

The clinics furnish abundant material for the use of medicines and the study of their actions.

The physiological changes in certain tissues resulting from the toxic doses of many drugs are as yet unknown, and opportunities for research are abundant in this field.

COURSES.

1. The Materials of Medicine. A study of the uses and actions of the various drugs and their preparation. A varied collection of the crude drugs is available and examined at the recitations. The course is con-

ducted in the form of lectures and frequent examinations. One hour each week throughout the year. M., 10. Dr. FISH.

2. Pharmacy. Each student is required to make those preparations which are most commonly used in practice; tinctures, fluid extracts, balls, powders, ointments, etc. In addition to this each student will have practical experience in writing and compounding prescriptions. The importance of a discriminating and accurate system for dispensing medicines is kept well in mind. Two hours per week. Winter term. M., 2-5, W., 2-4. Dr. FISH.

3. Therapeutics. The treatment and cure of disease. This subject, standing along with pathology, unites physiology, anatomy, chemistry, and botany with medicine and surgery. It is therefore desirable to have some knowledge of these branches in order to obtain a full appreciation of the means employed in the restoration of health. Lectures one hour each week. Spring term. W., 10. Dr. FISH.

This course must be preceded by the first year course in physiology, or its equivalent.

4. Research and Thesis. Three hours throughout the year. Dr. FISH.

VETERINARY MEDICINE; ZYMOTIC DISEASES, VETERINARY SANITARY SCIENCE; PARASITES AND PARASITISM.

The course in Veterinary Medicine deals with the purely medical diseases of the different genera of domestic animals,—including the various constitutional, dietetic and toxic affections and the maladies of the different systems of organs—digestive, respiratory, circulatory, urinary, cutaneous, nervous and visual. The lectures and recitations extend over the two last years of undergraduate study. They are illustrated by diagrams, by dry and wet museum specimens and by subjects presented in the clinics. The special value of the course lies in its wide scope which includes equally all species, the aim being not to make students hippopathologists only, but zoöpathologists or more definitely veterinary pathologists. The site of the College between the city of Ithaca and a well stocked agricultural environment is well calculated to carry out this aim.

In course 2 is treated the general subject of zymosis and contagion; the microbiology of diseases; the accessory causes such as special conditions of soil, culture, climate, season, weather, trade, migration, war, consumption of animal food, etc.; the diagnosis of the different plagues, the various methods of control and suppression by the individual owner, the municipality, town, county, state, or nation; and the exclusion of pestilences from a country. Each zymotic disease is made a special study, and its transmissibility to different genera of animals, from animals to man, and from man to animals together with the susceptibitity of each genus to immunization and the best known means of securing this receive due attention. Enzoötic affections receive the same attention, and the necessary preventive measures in connection with soils, drainage, buildings, exposures, wells, ponds, marshes, factories and other local causes are fully dealt with. Illustrative diagrams, preserved specimens and, when opportunity offers, fresh subjects and specimens are employed for demonstration.

In the course on parasites and parasitism, the zoölogical place of the parasite in nature, its life history in connection with the animal body and apart from it, the lesions and symptoms caused, the genera susceptible, and its diagnosis, destruction and prevention are fully considered. An extensive collection of the parasites of domestic animals is available for demonstration, and where these are lacking, diagrams and illustrations will be used.

The medical clinic covering this whole field, and drawn from city and country alike, furnishes the greatest possible variety as regards genus and species of patient, while the hospital and isolation wards furnish a supply of cases that can be watched from day to day. Individual cases are placed in charge of senior students who keep a record of symptoms and treatment. This record is open to the entire class so that all can profit equally by every case. Outpatients on the University farm and in the city can also be availed of for clinical uses.

COURSES.

1. Veterinary Medicine: Principles and Practice. Fall, winter and spring. Three hours. M., W., F., 8. Professor LAW.

This course extends over two years.

2. Contagious Diseases; Veterinary Sanitary Science. Fall, winter and spring. Two hours. T., Th., 8. Professor LAW.

[This course will be given to second and third year men in 1898–99. See the following]:

3. Parasites and Parasitic Diseases. Fall, winter and spring. Two hours. T., Th., 8. Professor LAW.

[This course will be given to second and third year men in 1899–1900. See the preceding].

4. Clinical Veterinary Medicine; second year men. Fall, winter and spring. Three hours. Professor LAW.

5. Clinical Veterinary Medicine; third year men. Fall, winter and spring. Six hours. Professor LAW.

6. Research and Thesis. Three hours throughout the year. Professor LAW.

SURGERY, OBSTETRICS, ZOÖTECHNICS AND JURISPRUDENCE.

SURGERY.

The instruction in Surgery is designed to equip the student with both theoretical and practical knowledge thorough in every respect.

The class room work extends through the second and third years and consists of lectures, or of recitations supplemented by lectures.

One term of fourteen weeks, five hours per week is given to General Surgery, including general surgical pathology, the infection of wounds, surgical therapeutics, aseptic and anti-septic treatment of wounds, the handling and restraint of animals.

Special Surgery extends over the remainder of the course, considering in detail the surgical disease of the various parts of the body, their causes, nature, diagnosis and treatment, to which is added an extended course in castration and spaying. The facilities for the instruction are in keeping with the general aim and scope of the college.

Abundant instruments and apparatus of both home and foreign patterns are provided for illustrating the lectures; while the college museum contains abundant material which is freely used for exemplifying surgical pathology.

The college becomes the possessor of the extensive pathological collection of the veterinary department of Cornell University, accumulated during nearly thirty years, to which have been added many valuable preparations contributed by veterinarians, and secured from the college clinics.

The course in practical surgery extending through the second and third years is given in the college clinics.

The location of Cornell University and the organization of the Veterinary College gives unusual opportunities for clinical instruction in the number and character of cases, the variety of species of animals and the availability of each case for purposes of instruction.

As each member of the veterinary faculty is exclusively employed by the college and is in no degree dependent upon private practice, all reasonable effort is exercised to lead owners of livestock to enter cases in the free clinics instead of diverting special cases to private practice.

The college clinics being wholly free, regardless of the value of the animal, the severity of the proposed operation or the owner's ability or willingness to pay, obviates the usual disadvantages of free clinics where largely inferior animals the property of poor and frequently careless people are presented in a state of health and with general surroundings not propitious for testing the value of a line of treatment or of following it to a successful issue, failing consequently to impart the desired knowledge, interest or enthusiasm to the student; while in our free clinics the student has to deal with animals of the same general character and value as those met with in ordinary veterinary practice.

The thickly inhabited agricultural country about Ithaca furnishes an abundance of clinical material of all classes of disease not alone of horses and dogs but of every species of domesticated animals.

Numerous cases, especially those for major surgical operations, are drawn from a radius of twenty-five miles thus placing a large and important stock-producing area tributary to our clinics.

All patients are admitted subject to our discretion as to whether an operation shall be performed by a member of the staff or by a student, the general plan being for the professor in charge to perform a sufficient number of operations to illustrate methods in a given case, after which they are performed by students in turn, under immediate supervision, aiming in this way to thoroughly fit men to perform any desired operation supported by that skill and confidence which actual work alone can give.

Practical Surgery is required of all second and third year students, the course extending through both years.

The second year student devotes three hours per week to clinics throughout the year, during which period he is required to keep in order and sterilize operating instruments, apply dressings to wounds, prepare and apply plaster of Paris and other fixation bandages to various parts, and to perform such surgical operations as opening abscesses, excising simple tumors and controlling the consequent hemorrhage, castration and spaying of dogs and cats, castration of normal horses, rasping, cutting and extracting irregular teeth and other operations of a similar grade.

The third year student devotes six hours a week throughout the year to clinics, repeats and perfects himself in the operations of the second year, makes examinations and diagnoses, administers chloroform to the larger animals and personally performs the major surgical operations, such as the removal of extensive tumors, the more difficult cases of dental surgery, ovariotomy in mares and cows, arytenectomy, tenotomy and other operations of a similar class. This work is carefully graded and the student advanced as rapidly from the simpler to the more difficult operations as is consistent. While the cadaver is used as needed for demonstrating surgical anatomy and procedure it is the policy of the department to require the student to perform the operations upon living animals of commercial value and for curative purposes.

Each student must acquire practical and experimental knowledge of surgery parallel to his theoretical training in the class room and is required to demonstrate his ability in the operating theatre.

All patients upon which important operations are performed are detained in the surgical ward until the crisis of the operation has been passed, and the student operating is required to follow his work and is held personally responsible for the proper after treatment of his patient.

All needed instruments and appliances for instruction in practical surgery are provided, while the surgical ward and operating room elsewhere described are commodious and perfect in every appointment. The most modern appliances for securing and controlling animals such as operating tables, stocks and casting apparatus are fully provided (Plate VI).

Special investigations in relation to surgical diagnosis, pathology and treatment are constantly being carried on, the material for such work being abundant. Special apparatus for investigations is supplied as needed, and advanced students are called upon to actively assist in the various investigations, becoming not only more familiar with surgical manipulations but inspired to study methodically and effectively the many questions in surgical pathology and therapeutics, and thus become better prepared to cope promptly and properly with the many atypical cases constantly occurring in general practice.

OBSTETRICS.

A thorough course of obstetrics is given during the second year, consisting chiefly of lectures including two hours per week during the winter term and four hours per week in the spring term.

The course is preceded by an extended study of embryology during the first year which serves as a foundation for the proper consideration of the subject. Obstetric anatomy and physiology have also been in a measure mastered during the first year in the departments of anatomy and physiology ; all three are then reviewed with special reference to obstetrics, teratology, and diseases of new-born animals.

The lectures are based in arrangement on Fleming's obstetrics supplemented by personal experience. Models and valuable museum preparations are used for illustration. While our location permits of the securing of much valuable clinical material, such obstetric cases as can not be brought to the college clinic are attended at the owner's premises by the class, under the personal direction of the professor in charge ; the students are in this way brought into actual contact with a class of cases the proper handling of which can not otherwise be effectively taught.

ZOÖTECHNICS.

The subject of Zoötechnics is chiefly taught in the College of Agriculture of Cornell University, covering the various breeds of domestic animals, the methods of breeding and handling.

Supplementary to this instruction a course of lectures covering one term two hours a week will be given dealing especially with the breeding, care and management of animals in relation to disease, hereditary diseases and vices and a general resumé of the subject of breeding as related to veterinary science.

JURISPRUDENCE.

A course of two lectures a week is given during the winter term of the second year, dealing with the general responsibilities of veterinarians to the public, to stock owners and professional colleagues ; methods of making and recording examinations for soundness, and a special study of physical diagnosis and prognosis as related to this subject.

Practice is given from time to time in the work at the clinics.

COURSES.

Students are not admitted to the third year in Surgery unless they have completed courses 1 and 2 in physiology, anatomy and histology.

1. General Veterinary Surgery. Fall term. Five hours. M., T., W., Th., F., 11. Professor WILLIAMS.

Course 1 is open only to those who have completed courses 1 and 2 in histology and course 1 in physiology.

2. Special Surgery (head and neck). Winter. Three hours. M., W., F., 11. Professor WILLIAMS.

Course 2 is open only to those students who have completed course 1 in anatomy, physiology and histology.

3. Veterinary Obstetrics. Winter. Two hours. T., Th., 11. Professor WILLIAMS.

Courses 3 and 4 must be preceded by course 3 in embryology.

4. Veterinary Obstetrics. Spring. Four hours. T., W., Th., F., 11. Professor WILLIAMS.

5. Veterinary Jurisprudence. Spring. One hour. M., 11. Professor WILLIAMS.

[Courses 1–5 will be given to second and third year men in 1898–99. See under Course 11.]

6. Clinical Veterinary Surgery; second year men. Fall, winter and spring. Three hours. Professor WILLIAMS.

7. Clinical Veterinary Surgery; third year men. Fall, winter and spring. Six hours. Professor WILLIAMS.

8. Special Surgery (chest, abdomen and anterior limbs). Fall. Five hours. M., T., W., Th., F., 11. Professor WILLIAMS.

9. Special Surgery (posterior limbs, skin). Winter. M., W., F., 11. Three hours. Professor WILLIAMS.

10. Zoötechnics. Winter. Two hours. T., Th., 11. Professor WILLIAMS.

11. Special Surgery (genito-urinary organs, castration). Spring. Five hours. M., T., W., Th., F., 11. Professor WILLIAMS.

[Courses 8–11 will be given to second and third year men in 1899–1900. See under Course 5].

12. Research and Thesis. Three hours throughout the year. Professor WILLIAMS.

COMPARATIVE PATHOLOGY, BACTERIOLOGY AND MEAT INSPECTION.

The instruction in pathology and bacteriology is given by means of lectures, recitations and laboratory work. In general pathology the students are drilled in the definitions and in the nature of the morbid changes included in this subject. In general pathology Ziegler's text book is followed but supplemented by the results of more recent investigations as they are found in current literature and special monographs.

Pathological histology will receive special attention. In this work the students will be taught, by actual laboratory work, the methods of preparing permanent preparations and of examining diseased tissues in the fresh condition. They will have the privilege of studying blood and of counting the red and white corpuscles. For this highly important work the laboratory is especially well equipped. For the general arrangement of the laboratory see Plates III and IV.

The fall term in bacteriology is devoted to methods. The laboratories are well supplied with the best modern apparatus. The students will, under proper supervision, prepare culture media, make various cultures and study the morphology of bacteria in both the fresh (living) condition and in stained cover-glass preparations. In fact, all of the technique necessary for a practical working knowledge in bacteriology will be carefully covered. In the winter the more important species of pathogenic and economic bacteria will be studied. The special methods for the bacteriological analysis of milk and water, and those which are necessary for investigating diseases, such as tuberculosis, anthrax, glanders and the infectious swine and poultry disorders will receive careful attention. In the spring term each student will have an opportunity of carrying out independently some investigation, thus applying bacteriological methods in a practical manner. The lectures in the spring term will deal with applied bacteriology. In this course will be considered disinfection, sterilization, the means by which pathogenic bacteria are disseminated, protective inoculation, serum therapy in animal diseases, and other kindred subjects.

For those who wish to do advanced work in either of these subjects excellent facilities are afforded by way of a separate room and apparatus. As we are constantly investigating outbreaks of infectious diseases, among animals in the state, an abundance of working material is assured. This enables the student to come into touch with actual work in bacteriological diagnosis.

As is seen from the above, it is the aim of this department to drill the students by means of actual work in the technique necessary for them to successfully apply in their future professional duties the knowledge acquired in the study of pathology and bacteriology. To this end the courses of instruction have been carefully arranged, and for this purpose the laboratories have been equipped.

COURSES.

1. General pathology. Fall term. This course is open to students who have had Normal Histology and at least one year's work in Anatomy and Physiology. Lectures and recitations. Two hours. T., Th., 9. Professor MOORE.

2. Pathology of infectious diseases. Winter term. This course is open to students who have taken Course 1 and have taken or are taking

Course 4. Lectures and laboratory work. Two hours. T., 9. Professor MOORE and Instructor REED.

3. Meat Inspection. Spring term. This course is open to students who have taken Courses 1 and 2. Lectures and laboratory work. Two hours. T., 9. Professor MOORE and Instructor REED.

4. Bacteriology. Lectures and laboratory work. Three hours per week throughout the year. M., 9. Professor MOORE and Instructor REED.

5. Research in Pathology and Bacteriology. Laboratory work with lectures throughout the year. Professor MOORE and Instructor REED. The course is designed for those preparing theses for the baccalaureate or advanced degrees and for those wishing to undertake original investigation in Pathology and Bacteriology. This course is open to students who have taken Courses 1 and 2 if the work is in Pathology or course 4 if in Bacteriology, or their equivalent in some other university. Elementary chemistry and a reading knowledge of French and German are indispensable for successful work in this course.

GRADUATE AND RESEARCH WORK.

The opportunities for study and investigation offered to advanced and graduate students in the college and in the various departments of Cornell University are very great. The situation of the college gives it a great variety as well as an abundance of material for research, and the facilities for prosecuting the work are ample. Each student, as a part of his last year's work, must write a thesis giving the results of a personal investigation upon some subject in veterinary medicine. See under requirements for graduation, p. 20). To students preparing theses and to graduate students every opportunity and encouragement will be offered for carrying on independent investigations. (For the special courses offering thesis and research work see under the various departments pp 22–37).

THE VETERINARY LIBRARY AND OTHER LIBRARY FACILITIES.

THE FLOWER VETERINARY LIBRARY.—By a gift of five thousand dollars ($5,000) to Cornell University for the purpose, the *Honorable Roswell P. Flower* laid a broad foundation for a thoroughly good working, veterinary library. The books and periodicals obtained with this fund have been considerably increased by donations from various persons and by books obtained from the income of the college; the Veterinary Library is also largely supplemented by the University Library, and by loans of books and periodicals therefrom.

The Periodical Room (Pl. II) at the college is open daily from 7 A. M. till 6 P. M., and contains the leading veterinary and medical periodicals in English, French and German. In it are also found Foster's Encyclopædic Medical Dictionary and the Index Catalog of the Medical Library of the Surgeon General's Office.

The Veterinary Library Room (Pl. II) is open for free consultation, and contains most of the books and bound periodicals belonging to the library or loaned to it from the University Library. Books bearing especially upon the work of any laboratory course, are kept upon the book shelves of the laboratory where they are constantly accessible.

The books and bound periodicals and transactions in the University Library (Pl. IX) upon veterinary and human medicine, with allied sciences, exceed ten thousand (10,000) volumes; and over 600 periodicals and transactions are received. Many of them pertain directly to medicine and biology. To all the University library facilities the veterinary students have free access in the library reading room, which is open daily from 8 A. M. to 11 P. M.

SEMINARY.

The Veterinary College Seminary, which meets every two weeks, has for its membership: (1) All members of the instructing body; (2) All students preparing theses in the college; (3) All students doing graduate and research work.

The purpose of the Seminary is: (a) To discuss the methods for advanced and independent work, that is such work as is expected of those preparing theses or prosecuting any special investigation; (b) The presentation of the results of investigations and the progress of knowledge in the various departments; (c) Reports by students of the progress of their work.

Naturally the members of the faculty take a leading part in (a and b) but as soon as the advanced work of students is well begun, the students present before the Seminary the results of their work.

At each meeting, after the report, the subject is open to all the members of the Seminary for questions and discussion. From the experience of the last two years it is believed that the Seminary is one of the most important parts of the college curriculum for preparing students for the duties and responsibilities of an honorable professional career.

SOCIETY OF COMPARATIVE MEDICINE.

This is a student society organized for the purpose of giving mutual aid in gaining general and special medical knowledge, facility in conducting the exercises of the meetings and in presenting papers and discussions in a clear and forcible manner before an audience.

TUITION AND LABORATORY FEES.

In the words of the law for the administration of the New York State Veterinary College: "No tuition fee shall be required of a student pursuing the regular veterinary course, who, for a year or more immediately preceding his admission to said veterinary college shall have been a resident of this state."

For students, not residents of New York State, the tuition is $100 per annum, $40 to be paid at the beginning of the fall, $35 at the beginning of the winter and $25 at the beginning of the spring term.

Laboratory fees.—Every person taking laboratory work is required to pay for the material actually used. This will average approximately $25 per year.

At the end of the course a fee of $5.00 is required of each student receiving a degree.

Living expenses in Ithaca vary from $3.50 to $10 per week. Books, instruments, stationery, etc., cost $10 and upward per year.

THE HORACE K. WHITE PRIZES.

These prizes, established by Horace K. White, Esq., of Syracuse, are awarded annually to the most meritorious students in the graduating class of the college. One prize of $15 to the first in merit ; to the second in merit, a prize of $10.

POSITIONS AS DEMONSTRATORS.

At present one or more demonstrators in Anatomy are appointed each year at a salary of $125.00. These positions are open to members of of the graduating class and to graduates of this college who have shown special proficiency in anatomy.

APPENDIX A.

OPENINGS FOR VETERINARIANS IN AMERICA.

1st. In the United States Cavalry and Artillery there is a demand for a limited number of veterinarians.

2nd. In the Bureau of Animal Industry, U. S. Department of Agriculture, a number of veterinarians are employed professionally, as live-stock agents and inspectors; inspectors and superintendents of quarantine stations; investigators in bacteriology and pathology, and as meat inspectors. (By an act of Congress the federal meat inspectors must be graduates of a veterinary college).

3rd. In the different States there are appointments as State Veterinarians, and in some as County or District Veterinarians, to attend to preventable diseases of animals.

4th. The time is not far distant when each municipality must have its veterinary inspectors of markets, abattoirs and butcher meat, as well as of milk and other dairy products.

5th. Accomplished veterinary pathologists are needed in all the States to serve on tuberculosis and other commissions, so that work in this field may be conducted intelligently and successfully on scientific lines. Such work on our herds can only be carried on by those specially trained in the anatomy, physiology, hygiene and pathology of the lower animals.

6th. Educators in comparative pathology are wanted in Agricultural and Veterinary Colleges, and experiment stations, and must ere long be in demand for every Medical College which aims to keep abreast of the times.

7th. There are always openings in the wide field of private veterinary practice. With a ratio of three farm animals to every human being, and with less than one veterinarian to every ten doctors of medicine for man, the balance of opportunity seems to be largely in favor of the veterinary practice, and this preponderance must steadily increase with the recovery of stock values and with the increase in numbers and individual value of farm animals.

APPENDIX B.

Legal requirements for license to practice veterinary medicine and surgery in the State of New York. Extracts from article X, Ch. 860, laws of New York, 1895.

§ 171. "*Qualifications for practice.*—No person shall practice veterinary medicine after July one, eighteen hundred and ninety-five, unless previously registered and legally authorized, unless licensed by the Regents and registered as required by this article ; nor shall any person practice veterinary medicine who has ever been convicted of felony by any court, or whose authority to practice is suspended or revoked by the Regents on recommendation of a State Board.

§ 176. *Admission to examination.*—The Regents shall admit to examination any candidate who pays a fee of ten dollars and submits satisfactory evidence, verified by oath if required, that he (first) is more than twenty-one years of age ; (second) is of good, moral character ; (third) has the general education required in all cases after July first, eighteen hundred and ninety-seven, preliminary to receiving a degree in veterinary medicine ; (fourth) has studied veterinary medicine not less than three full years, including three satisfactory courses, in three different academic years, in a veterinary medical school registered as maintaining at the time a satisfactory standard ; (fifth) has received a degree as veterinarian from some registered veterinary medical school. The degree in veterinary medicine shall not be conferred in this state before the candidate has filed with the institution conferring it, the certificate of the Regents that three years before the date of the degree, or before or during his first year of veterinary medical study in this State, he has either graduated from a registered college or satisfactorily completed an academic course in a registered academy or high school; or has a preliminary education considered and accepted by the Regents as fully equivalent." [See pp. 8–19 for preliminary educational requirements].

§ 178. *Examinations and Reports.*—Examination for license shall be given in at least four convenient places in this State and at least four times annually, in accordance with the Regents' rules, and shall be exclusively in writing and in English. Each examination shall be conducted by a Regent examiner, who shall not be one of the veterinary medical examiners. At the close of each examination, the Regents' examiner in charge shall deliver the questions and answer papers to the board, or to its duly authorized committee, and such board without unnecessary delay, shall examine and mark the answers and transmit to the Regents an official report, signed by its president and secretary, stating the standing of each candidate in each branch, his general average, and whether the board recommends that a license be granted. Such report shall include the questions and answers and shall be filed in the public records of the university. If a candidate fails on his first examination, he may, after not less than six months' further study, have a second examination without fee. If the failure is from illness or other cause satisfactory to the Regents, they may waive the required six months' study.

§ 179. *Licenses.*—On receiving from the State board an official report that an applicant has successfully passed the examination and is recommended for license, the Regents shall issue to him, if in their judgment he is duly qualified therefor, a license to practice veterinary medicine. Every license shall be issued by the university under seal and shall be signed by each acting veterinary medical examiner of the board and by the officer of the university who approved the credential which admitted the candidate to examination, and shall state that the licensee has given satisfactory evidence of fitness, as to age, character, preliminary and veterinary medical education and all other matters required by law, and that after full examination he has been found properly qualified to practice. . . . . . . Before any license is issued it shall be numbered and recorded in a book kept in the Regents' office and its number shall be noted in the license. This record shall be open to public inspection, and in all legal proceedings, shall have the same weight as evidence that is given to a record of conveyance of land.

§ 180. *Registry.*—Every license to practice veterinary medicine shall, before the licensee begins practice thereunder, be registered in a book to be known as the "veterinary medical register," which shall be provided by and kept in the clerk's office of the county where such practice is to be carried on, with name, residence, place and date of birth, and source, number and date of its license to practice. Before registering, each licensee shall file, to be kept in a bound volume in the county clerk's office an affidavit of the above facts, and also that he is the person named in such license, and had, before receiving the same, complied with all requisites as to attendance, terms and amount of study and examination required by law and the rules of the university as preliminary to the conferment thereof, and no money was paid for such license except the regular fees, paid by all applicants therefor; that no fraud, misrepresentation or mistake in any material regard was employed by anyone or incurred in order that such license should be conferred. Every license, or if lost, a copy thereof, legally certified so as to be admissable as evidence, or a duly attested transcript of the record of its conferment, shall before registering, be exhibited to the county clerk, who only in case it was issued or indorsed as a license under seal by the Regents, shall indorse or stamp on it the date and his name preceded by the words: "Registered as authority to practice veterinary medicine, in the clerk's office of ——— county." The clerk shall thereupon give to every veterinarian so registered a transcript of the entries in the register, with a certificate under seal that he has filed the prescribed affidavit. The licensee shall pay to the county clerk as a total a fee of one dollar for registration, affidavit and certificate."

CATALOG OF STUDENTS.

1897–1898.

THIRD YEAR STUDENTS.

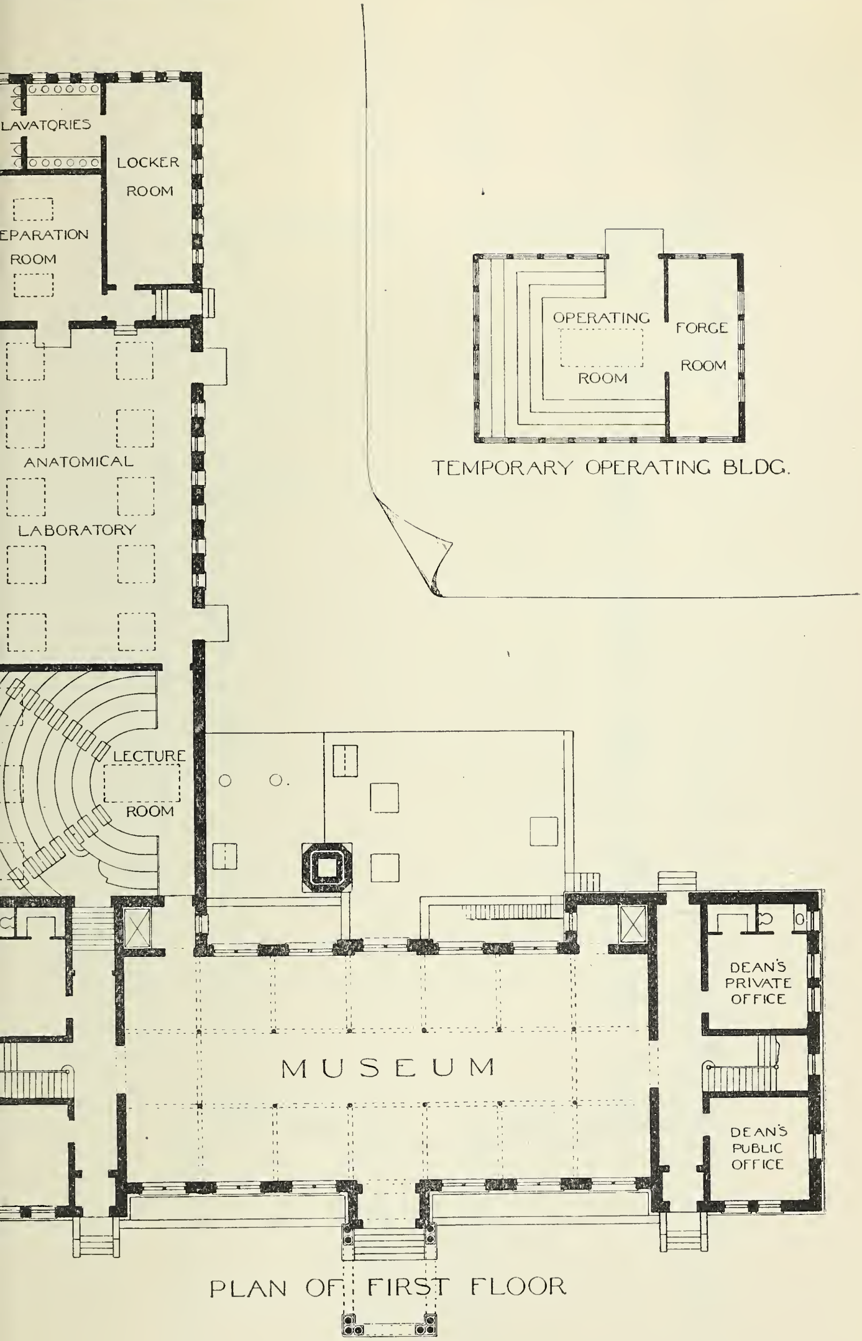
Dustan, A. W.	Morristown, N. J.
Kelly, A. B.	Albany
Lehrman, H. J.	Montclair, N. J.
Moore, E. L.	Halifax, N. S., Canada
Stanclift, R. J.	Derby

SECOND YEAR STUDENTS.

Fish, P. A.	Ithaca
Gay, C. W.	Ithaca
Hopkins, G. S.	Ithaca
Illston, H. W.	Ithaca
Kern, A. G.	Knoxville, Tenn.
Mitchell, W. J.	Ithaca
Perkins, C. R.	Hardy's
Potter, Chas. B.	Ithaca

FIRST YEAR STUDENTS.

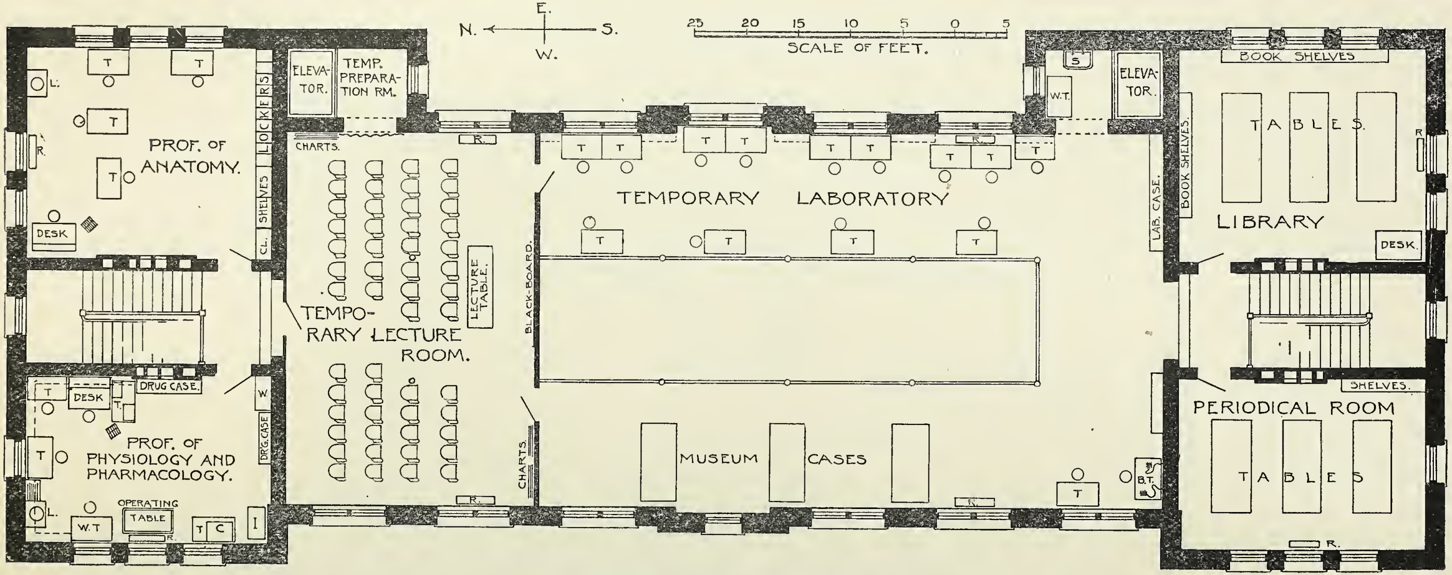
Barnes, C. L.	Lockport
Juliand, Louis	Greene
Reed, R. C.	Ithaca
Stone, G. T.	Binghamton



TEMPORARY OPERATING BLDG.

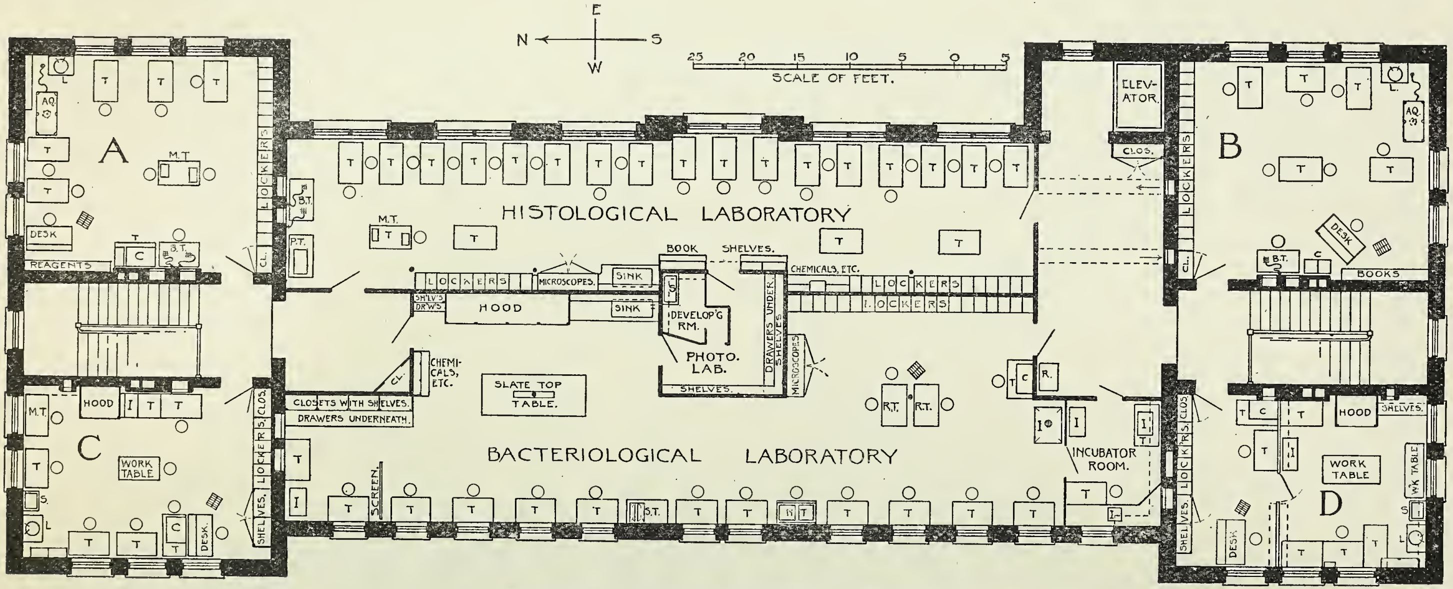
PLAN OF FIRST FLOOR

MAIN BUILDING.



Plan of Second Floor--Main Building.

TEMPORARY LABORATORY OF PHYSIOLOGY AND PHARMACOLOGY.



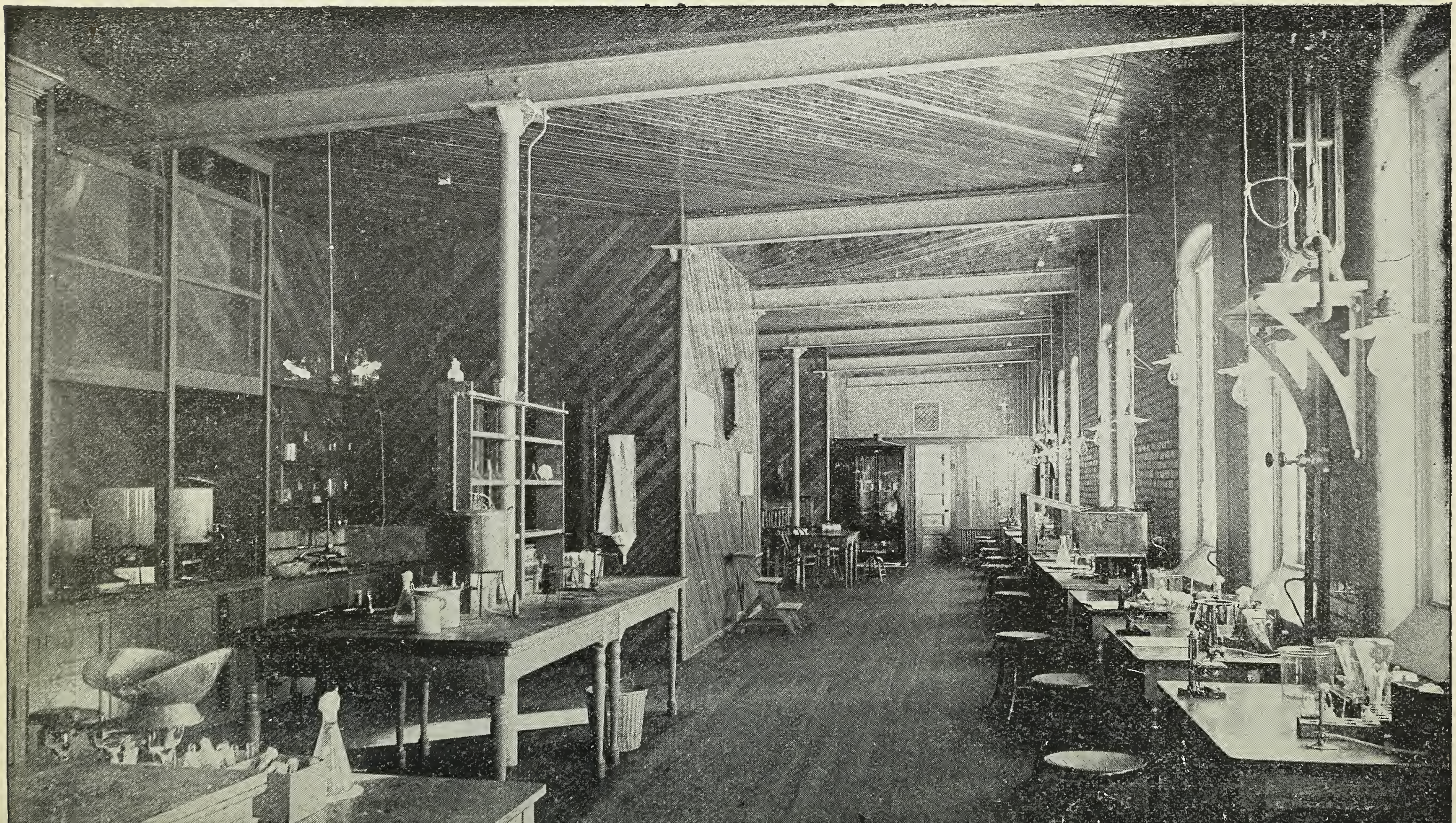
PLAN OF THIRD FLOOR--MAIN BUILDING.

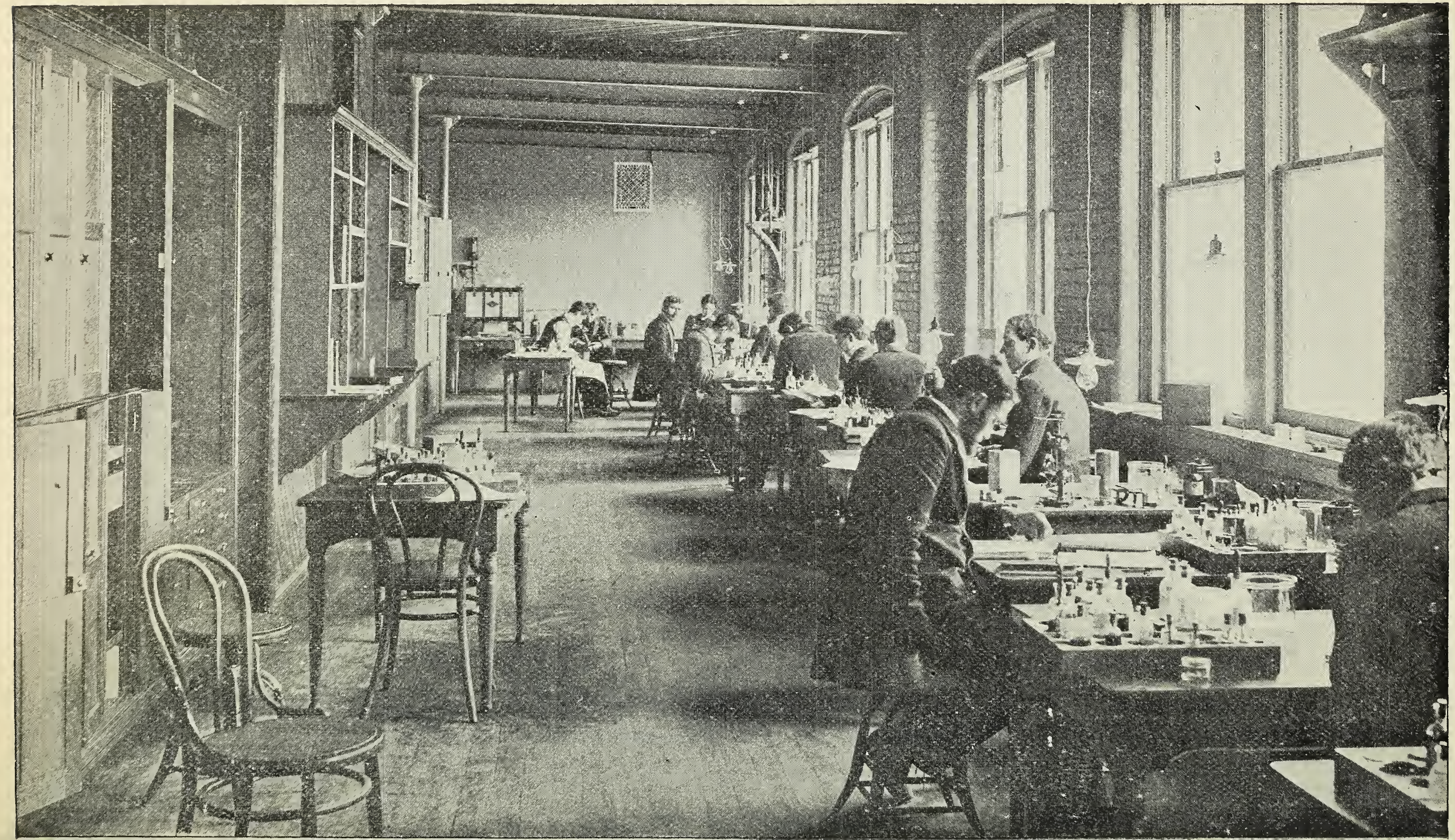
A.—Laboratory for Research in Histology and Embryology.

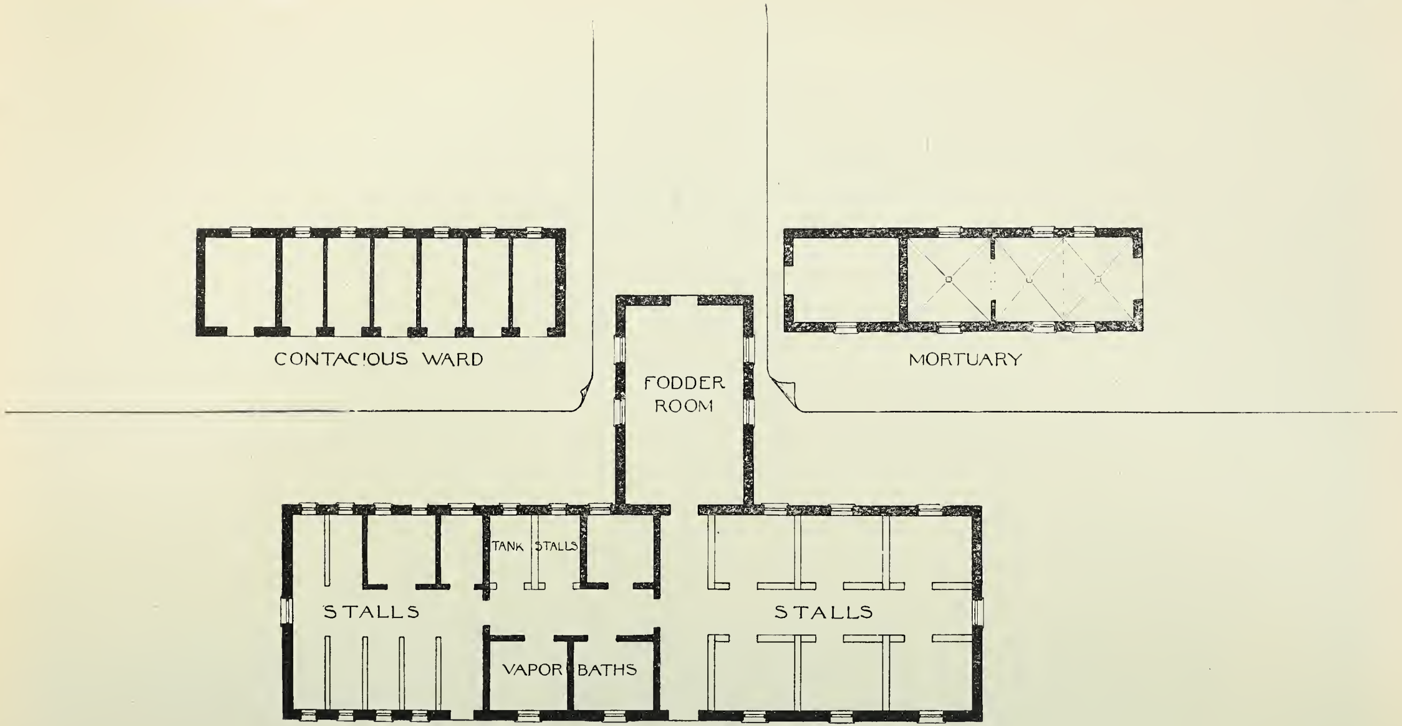
B.—Laboratory of the Professor in charge of Microscopy, Histology, Embryology.

C.—Laboratory for Research in Bacteriology and Comparative Pathology.

D.—Laboratory of the Professor in charge of Bacteriology and Comparative Pathology.

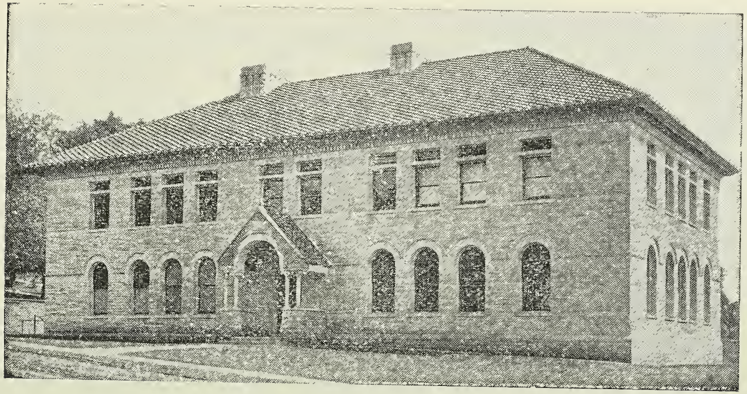






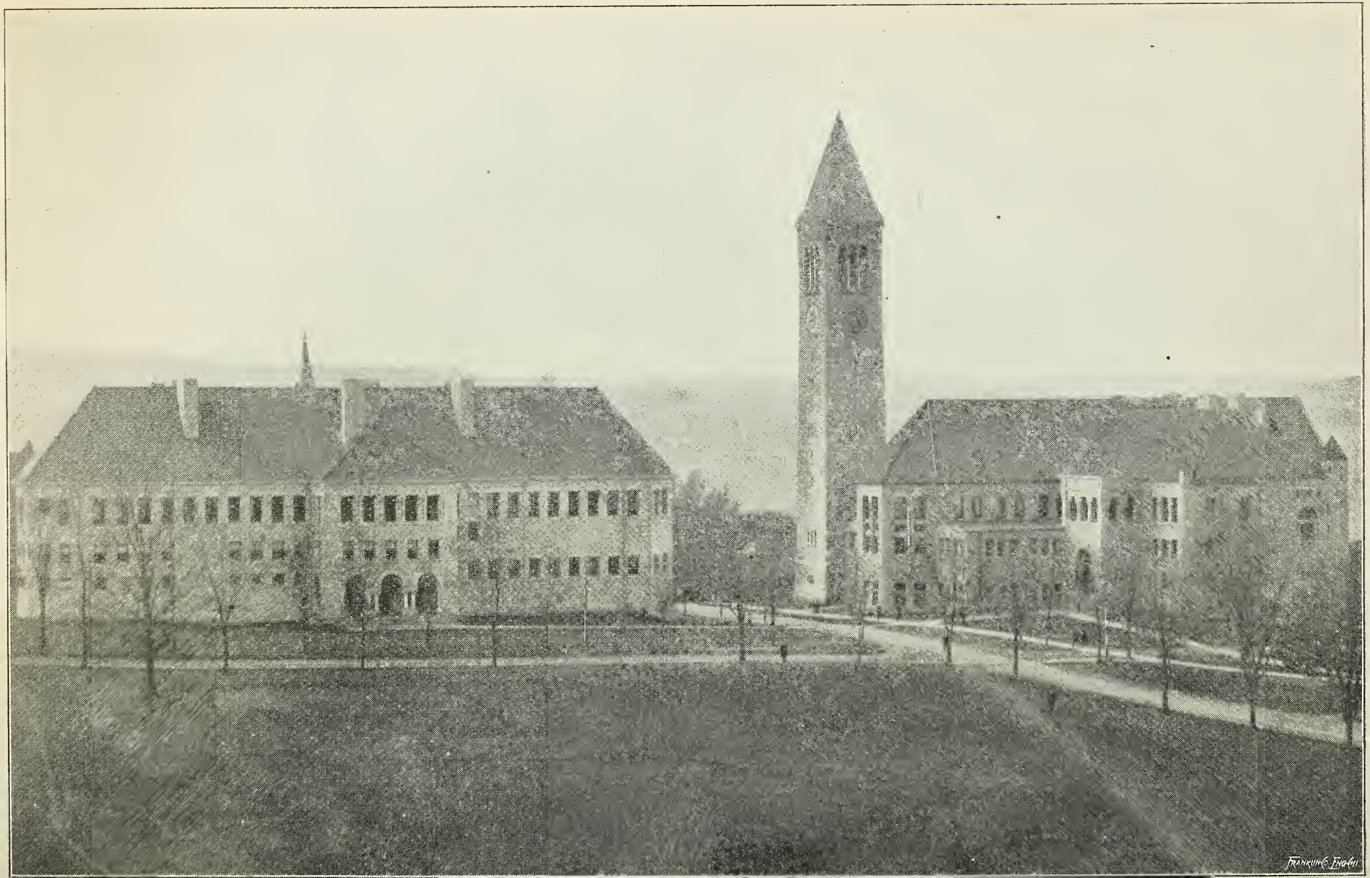
PLAN OF GENERAL WARD

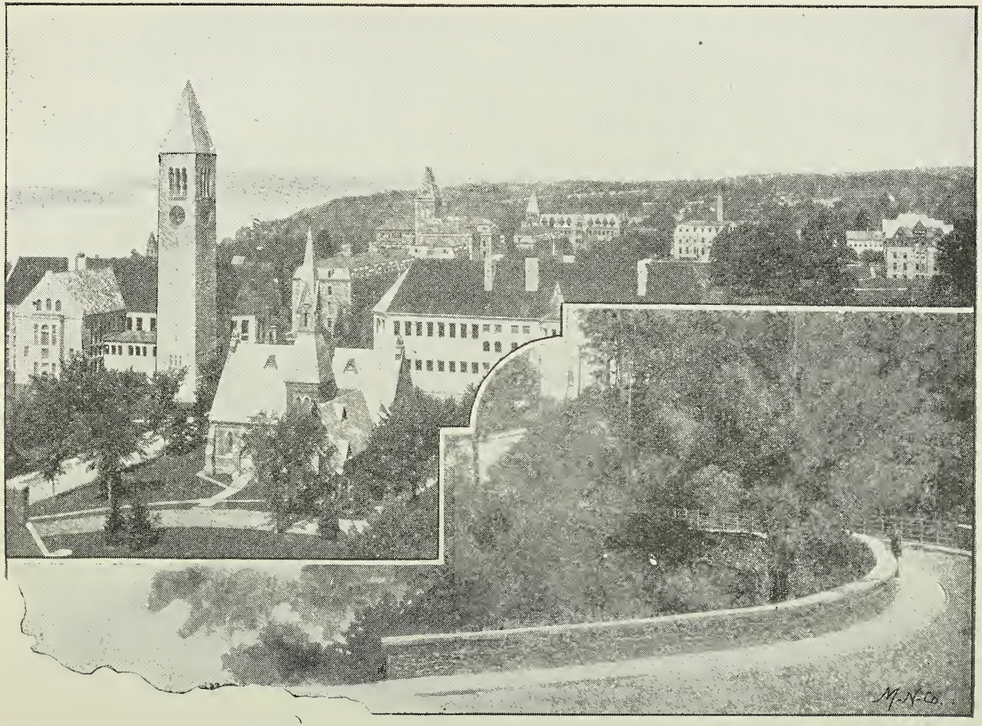
CONTAGIOUS WARD AND MORTUARY.



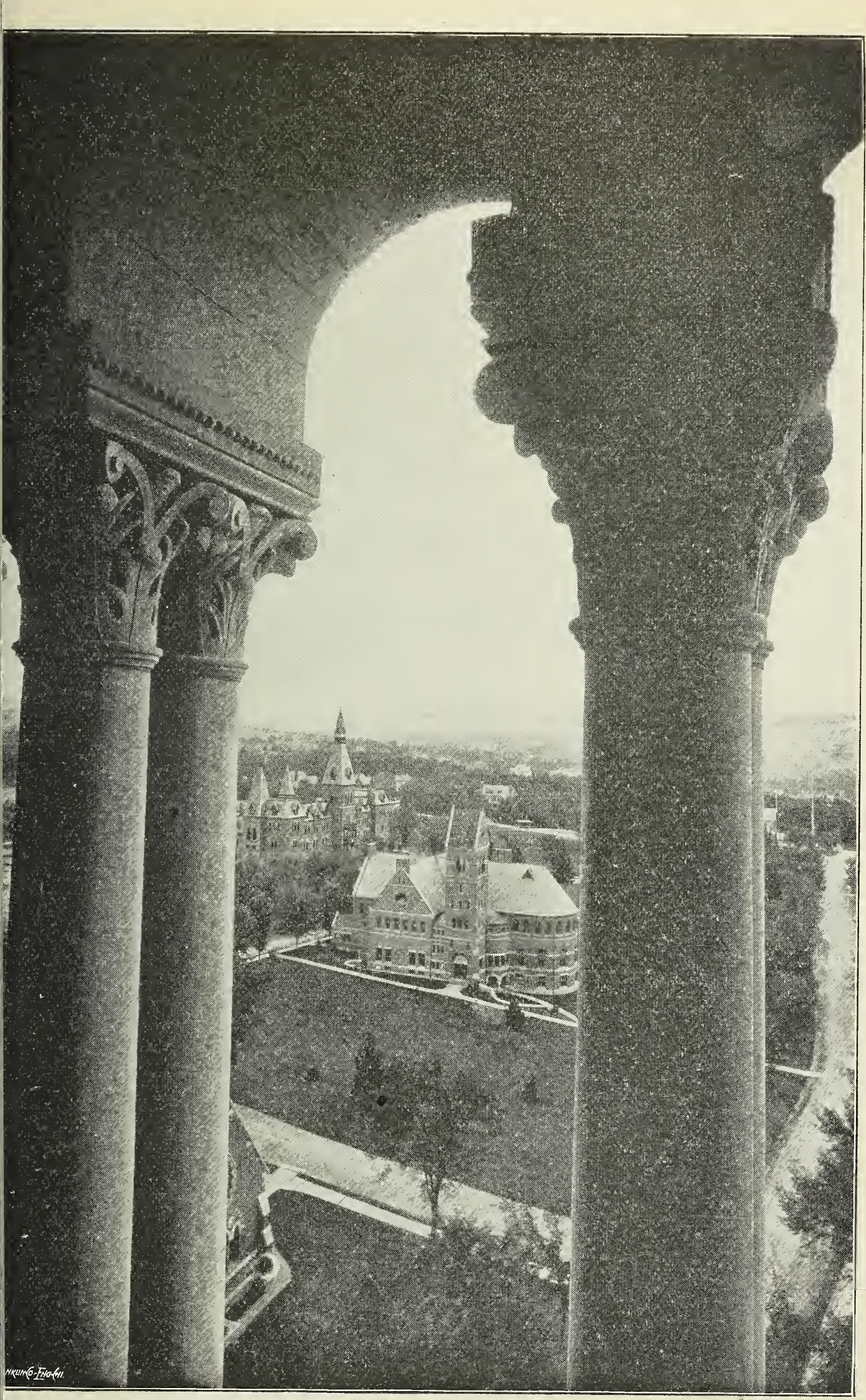
DAIRY BUILDING--BREEDS AND BREEDING.

Cornell University.





UNIVERSITY CAMPUS AND CASCADILLA BRIDGE—Looking North.



UNIVERSITY CAMPUS--Looking South from the Library Tower.

UNIVERSITY PUBLICATIONS

The following publications are issued at the University and may be had on application to the Registrar.

Annual Announcement of all Courses of Instruction.

Question Papers used at Examinations for Admission, for Advanced Standing in the Academic Departments, and for University Scholarships.

Announcement of the President White School of History and Political Science.

Announcement of the Sage School of Philosophy.

Instruction in Greek, Latin, Comparative Philology and Classical Archæology.

Announcement of Courses of Instruction in Mathematics.

Announcement of Courses of Instruction in Physics.

Announcement of Courses of Instruction in Chemistry.

Announcement of Courses of Instruction in Marine Engineering and Naval Architecture.

Announcement of Courses of Instruction in Agriculture.

Announcement of the New York State Veterinary College.

Announcement of the College of Law.

Announcement of Courses of Instruction in the Summer School.

Announcement of the Summer School of Law.

Bulletins of the Cornell University Agricultural Experiment Station. *Apply to the Director—Agricultural Experiment Station, Ithaca, N. Y.*

Teacher's Leaflets in Nature-Study, prepared by the Cornell University Agricultural Experiment Station. *Apply to the Chief Clerk, College of Agriculture, Ithaca, N. Y.*

2v
1900

ANNOUNCEMENT

1899–1900

The New York State Veterinary College

AT

CORNELL UNIVERSITY

THE LIBRA
OF THE
UNIVERSITY OF ILLINOIS

> "THERE IS HEREBY ESTABLISHED
> A STATE VETERINARY COLLEGE
> AT CORNELL UNIVERSITY"
> *Laws of New York, 1894, p. 307*

ITHACA, NEW YORK

CALENDAR OF THE NEW YORK STATE VETERINARY COLLEGE AND OF CORNELL UNIVERSITY

1899-1900

Fall Term—1899

Sept. 19, Tuesday.	University entrance examinations begin.
Sept. 25, Monday. Sept. 26, Tuesday. Sept. 27, Wednesday.	Registration of students in all departments and colleges at Ithaca.
Sept. 28, Thursday.	Instruction begins. President's Annual Address to all students, 12 M.
Oct. 3, Tuesday.	Registration of students in the Medical College, New York City.
Oct. 14, Saturday.	Announcement of thesis subjects to the Secretary of the Faculty, Room 11.
Nov. —, Thursday.	Thanksgiving Day.
Dec. 23, Saturday.	Christmas recess begins

Winter Term—1900

Jan'y 3, Wednesday.	Winter term begins. Registration.
Jan'y 11, Thursday.	Founder's Day.
Feb'y 22, Thursday.	Washington's Birthday.
March 24, Saturday.	Spring recess begins.

Spring Term—1900

April 3, Tuesday.	Spring term begins. Registration.
May 1, Tuesday.	Theses due.
May 30, Wednesday.	Decoration Day.
June 5 and 6, Tue. and Wed.	Examination of Candidates for a degree.
June 14, Thursday.	Work ends.
June 15, Friday.	University entrance examinations begin.
June 21, Thursday.	Commencement.

Fall Term—1900-1901

Sept. 18, Tuesday.	University entrance examinations begin.

LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

E. McGILLIVRAY ENG.

ANNOUNCEMENT

1899–1900

The New York State Veterinary College

"THERE IS HEREBY ESTABLISHED
A STATE VETERINARY COLLEGE
AT CORNELL UNIVERSITY"
Laws of New York, 1894, p. 307

ITHACA, NEW YORK

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OFFICERS OF ADMINISTRATION OF THE NEW YORK STATE VETERINARY COLLEGE

The Board of Trustees of Cornell University, in which are included the following State Officers : His Excellency the Governor, His Honor, the Lieutenant-Governor, the Speaker of the Assembly, the Superintendent of Public Instruction ; also the President of the State Agricultural Society, and the Commissioner of Agriculture.

VETERINARY COLLEGE COUNCIL

The President of Cornell University, JACOB G. SCHURMAN.

The Director of the Veterinary College, *Professor* JAMES LAW.

From the Board of Trustees, MYNDERSE VAN CLEEF.

The Treasurer of Cornell University, EMMONS L. WILLIAMS.

Professor VERANUS A. MOORE.

Professor PIERRE A. FISH.

CHARLES EZRA CORNELL, *Secretary of the Council.*

FACULTY OF THE NEW YORK STATE VETERINARY COLLEGE

JACOB GOULD SCHURMAN, A.M., D.Sc., LL.D., *President.*

JAMES LAW, F.R.C.V.S., *Professor of Principles and Practice of Veterinary Medicine, Veterinary Sanitary Science and Parasitism.*

WALTER L. WILLIAMS, D.V.S., *Professor of Principles and Practice of Veterinary Surgery, Obstetrics, Zoötechny, and Jurisprudence.*

PIERRE AUGUSTINE FISH, D.Sc., D.V.S., *Assistant Professor of Comparative Physiology, Pharmacology, and Therapeutics.*

VERANUS ALVA MOORE, B.S., M.D., *Professor of Comparative Pathology and Bacteriology, and of Meat Inspection.*

SIMON HENRY GAGE, B.S., *Professor of Microscopy, Histology and Embryology.*

GRANT SHERMAN HOPKINS, D.Sc., *Assistant Professor of Veterinary Anatomy and Anatomical Methods.*

BENJAMIN FREEMAN KINGSBURY, A.B., M.S., PH.D., *Instructor in Microscopy, Histology and Embryology.*

RAYMOND CLINTON REED, PH.B., *Instructor in Comparative Pathology and Bacteriology.*

——— ———, *Demonstrators in Anatomy.*

CHARLES EZRA CORNELL, A.B., LL.B., *Librarian of the Roswell P. Flower Library, and Clerk of the College.*

PROFESSORS AND TEACHERS IN CORNELL UNIVERSITY WHO FURNISH INSTRUCTION TO VETERINARY STUDENTS

GEORGE CHAPMAN CALDWELL, B.S., PH.D., *Professor of Agricultural and Analytical Chemistry.*

ISAAC PHILLIPS ROBERTS, M.AGR., *Professor of Agriculture.*

WILLIAM RIDGELY ORNDORFF, A.B., PH.D., *Assistant Professor of Organic and Physiological Chemistry.*

HENRY HIRAM WING, M.S., *Assistant Professor of Animal Industry and Dairy Husbandry.*

JOSEPH ELLIS TREVOR, PH.D., *Assistant Professor of General Chemistry, and Physical Chemistry.*

EMIL MONIN CHAMOT, B.S., PH.D., *Lecturer on Analytical and Sanitary Chemistry and Toxicology.*

AGNES MARY CLAYPOLE, PH.B., M.S., PH.D., *Assistant in Microscopy, Histology and Embryology.*

CHARLES MELVIN MIX, A.B., *Assistant in Microscopy, Histology and Embryology.*

BURTON DORR MYERS, PH.B., *Assistant in Materia Medica and Pharmacology.*

FLOYD ROBBINS WRIGHT, A.B., *Assistant in Bacteriology.*

VETERINARY COLLEGE DIRECTORY

The President of the University, JACOB G. SCHURMAN, 2 Morrill Hall.

The Dean of the Veterinary College, Professor JAMES LAW, Room 2, s. e. corner, 1st floor of the Veterinary College.

Professor WALTER L. WILLIAMS, Room 3, n. w. corner, 1st floor.

Professor PIERRE A. FISH, Room 11, n. w. corner, 2d floor.

Professor GRANT S. HOPKINS, Room 12, n. e. corner, 2d floor.

Professor VERANUS A. MOORE, Room 13, s. w. corner 3d floor.

Professor SIMON H. GAGE, Room 14, s. e. corner, 3d floor.

Instructor B. F. KINGSBURY, Room 18, n. e. corner, 3d floor.

Instructor RAYMOND C. REED, Room 17, n. w. corner, 3d floor.

Veterinary College Clerk, CHARLES EZRA CORNELL, Room 1, s. w. corner, 1st floor.

The Stud Groom, GEORGE I. BOVIER, Cottage east of Main Building (see plan, p. 7).

FOUNDATION

The New York State Veterinary College was established by act of the State Legislature in 1894. "There is hereby established a State Veterinary College at Cornell University," Laws of New York, 1894, p. 307. By action of the Board of Trustees of Cornell University, June 10, 1894, the location of the College upon the University Campus was authorized. It was further enacted that while the University does not undertake any financial responsibility for the buildings, equipment or maintenance of the College, it does consent to furnish instruction upon such subjects as are or shall be in its curriculum upon such terms as may be deemed equitable.

By further acts of the Legislature provision for the buildings, equipment and maintenance of the College were made, and finally in 1897, by "An act to provide for the administration of the State Veterinary College, established by chapter 153 of the laws of 1894," it was enacted that the Trustees of Cornell University should be entrusted with the administration. (For officers of administration, see p. 3).

OBJECTS OF THE INSTITUTION

As stated in the act to provide for the administration of the State Veterinary College : "*The State Veterinary College, established by chapter 153 of the laws of 1894, shall be known as the New York State Veterinary College. The object of the said veterinary college shall be : to conduct investigations as to the nature, prevention and cure of all diseases of animals, including such as are communicable to man and such as cause epizootics among livestock ; to investigate the economical questions which will contribute to the more profitable breeding, rearing and utilization of animals ; to produce reliable, standard preparations of toxins, antitoxins and other products to be used in the diagnosis, prevention and cure of diseases and in the conducting of sanitary work by approved modern methods ; and to give instruction in the normal structure and function of the animal body, in the pathology, prevention and treatment of animal diseases, and in all matters pertaining to sanitary science as applied to live stock and correlatively to the human family.*"

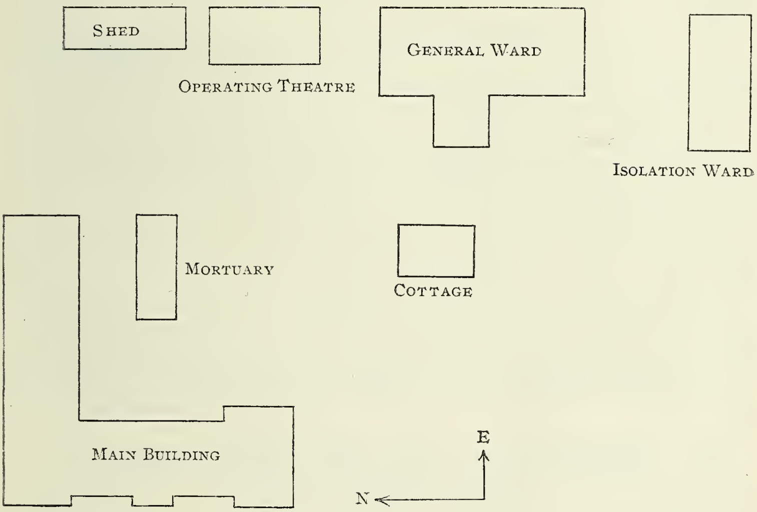
The New York State Veterinary College was therefore founded to raise the standard of veterinary investigation and instruction to the level of the most recent advances in biology and medicine. The number of farm animals in the State (9,450,000), and their value ($131,200,000), with a yearly product, in milk alone, of over 5,000,000,000 gallons, give some idea of the great interest at stake in the matter of live stock. For the United States a value in live stock of, approximately, $2,000,000,000, and a yearly sale, in Chicago alone, of $250,000,000 worth, bespeak the need of all that learning and skill can do for the fostering of this great industry. Another consideration is that the normal permanent fertilization of the soil is dependent upon the live stock kept, and that where there is a deficiency of animals, the productiveness of the land is steadily exhausted; so that the health and improvement of animals and the fostering of animal industry, lie at the very foundation of our national wealth. Another, and no less potent argument, for the highest standard of veterinary education, is its influence on the health of the human race. With a long list of communicable diseases, which are common to man and beast, and with the most fatal of all human maladies—tuberculosis—also the most prevalent affection in our farm herds in many districts, it is to the last degree important that measures for the extinction of such contagion in our live stock should receive the best attention of the most highly trained experts.

To justify the liberality of the State in creating this seat of learning, it will be the aim of the college to thoroughly train a class of veterinarians for dealing with all diseases and defects that depreciate the value of our live stock, and with the causes which give rise to them; to recognize and suppress animal plagues, which rob the stock owner of his profits, and cause widespread ruin; to protect our flocks and herds against pestilences of foreign origin, and to protect human health and life against diseases of animal origin. It will further aim, so far as it has the means and opportunity, at establishing a center of investigation, looking towards such improvements in the breeding, care and management of animals as may enhance their market value and make returns more speedy and profitable; towards discoveries in therapeutics, and the immunization of animals and men from contagion; and towards the production of organic compounds to be employed in diagnosis, treatment and immunizing. So much has been recently discovered in these directions, and present knowledge points so unmistakably to coming discovery, that to neglect this field at the present time would be decidedly reprehensible. Apart from discovery, the mere production of reliable articles of these organic products which are coming into increasing demand by the State and private practitioner, for prevention, diagnosis and treatment, is an object not to be lightly set aside. The combination in one institution of educational facilities with scientific investigation, and the production of the organic extracts to be employed in modern medical methods, is a feature calculated to insure the best work in all departments, and the most exceptional advantages for the diligent student.

LOCATION AND BUILDINGS

The New York State Veterinary College is located at Ithaca, on the campus of Cornell University, fronting on East Avenue, and facing the University buildings. Electric cars on East Avenue convey students and visitors to any part of the city. Ithaca, with its population of 12,000, is situated at the head of Cayuga Lake, 262 miles distant from New York City, and on the lines of the Delaware, Lackawanna and Western, and the Lehigh Valley railroads. The University grounds are half a mile from the business center of the city and 400 feet higher, commanding a view of 20 miles of valley and lake. They comprise 270 acres, of which 125 are used by the department of agriculture, and furnish home facilities for clinics and zoötechnics. On the campus of 80 acres are 36 professors' houses, 5 fraternity houses, and over 30 University and College buildings.

The buildings for the State Veterinary College are seven in number, as follows :



The Main Building, 142 feet by 42 feet and three stories high, overlooks East Avenue and an intervening park of 220 feet by 300 feet. The walls are of dull, yellowish buff, pressed brick, on a base of Gouverneur marble ; window and door facings of Indiana limestone, and terra cotta ornamentation. On the first floor are the museum and rooms of the director (Dr. Law), the professor of surgery and obstetrics, and the business office (Plate I). The second floor is devoted to the upper part of the museum, a lecture room, a temporary laboratory of Physiology and Pharmacology, reading room, library and rooms of professors (Plate

II). The third floor is devoted to the laboratories of pathology and bacteriology and of microscopy, histology and embryology (Plate III).

Connected with the main building and forming its EAST WING is a structure of 90 feet by 40, and one story high. This contains the anatomical laboratories, and the lecture room of anatomy, medicine and surgery. Its floors are of impermeable cement, the walls lined by enameled white brick, and the ceilings covered with sheet steel (Plate I).

The second extension from the main building is the BOILER AND ENGINE ROOM, where power is generated for heating and ventilation.

The Surgical Operating Theatre is a separate building in the rear of the main building, and is furnished with room for instruments, water, heater, etc. The lighting and equipment, and the facilities for demonstration, have been specially attended to (Plate I).

The General Patient's Ward, 100 feet by 31, is furnished with box and other stalls, heating apparatus, baths and all necessary appliances. The floor is of impermeable cement, and the ceilings of painted sheet steel. There is also a fodder room of 20 by 30 feet (Plate VI).

The Isolation Ward 54 feet by 15, has its stalls absolutely separated from one another and each opening from its own outer door. It has the usual impermeable floor, with walls of vitrified brick and painted sheet steel ceilings.

The Mortuary Building has an impermeable floor, walls of enameled brick and painted steel plate ceilings, and is fitted with every convenience for conducting post mortem examinations and preparing pathological specimens.

The Shed 51 by 20 feet, next the operating theatre is devoted to clinical uses.

These, with a cottage for the stud groom, complete the list of State buildings erected for the Veterinary College. The equipment has been made very complete both for educational uses and original research.

For a more detailed account of the equipment and the facilities for instruction see "Departments, methods and facilities," pp. 13–29.

ADMISSION TO THE NEW YORK STATE VETERINARY COLLEGE

Admission on Certificate.—For admission the candidate must possess at least the preliminary education required by the laws of New York (Laws of 1895, Ch. 860). As evidence that the requirements have been fulfilled, the Regents issue "Veterinary Student Certificates," and one of these must be obtained by the candidate and filed with the Director of the college.

Briefly stated, the legal, preliminary, educational, requirement for admission is that the candidate must have satisfactorily completed a course requiring at least 48 academic, Regents' counts in a registered academy or high school, or he must have had a preliminary education considered and accepted by the Regents as fully equivalent. [By a ruling of the Regents, 24 academic counts will be accepted for the certificate during the years 1898 and 1899].

The Regents will accept as fully equivalent to the required academic course any one of the following:

1. A baccalaureate degree from the academic department of any college or university of recognized standing.

2. A certificate of having successfully completed at least one full year's course of study in the collegiate department of any college or university, registered by the Regents as maintaining a satisfactory standard.

3. A certificate of having passed in a registered institution examinations equivalent to the full collegiate course of the freshman year or to a completed academic course.

4. Regents' pass cards for any 48 academic counts or any regents' diploma.

5. Certificate of graduation from any registered gymnasium in Germany, Austria or Russia.

6. A certificate of the successful completion in Italy of a course of five years in a registered *ginnasio* and three years in a *liceo*.

7. The bachelor's degree in arts or science, or substantial equivalents from any registered institution in France or Spain.

8. Any credential from a registered institution, or from the government in any state or country which represents the completion of a course of study equivalent to graduation from a registered New York high school or academy or from a registered Prussian gymnasium.

(For full information concerning the education necessary to obtain the "Veterinary Student Certificate" or for the acceptance as equivalents of work done in the academies or high schools of this or of other states, not under the Regents, address: Examination Department, University of the State of New York, Albany, N. Y.).

Admission on Examination.—For the present, students with a "Regents' Veterinary Student Certificate" will be admitted without further examination. For those not possessing such a certificate, admission may be granted to students who pass Cornell University entrance examinations as follows: (The Veterinary College Faculty does not hold entrance examinations. All entrance examinations are given by the Faculty of Arts and Sciences):

The following, representing an equivalent of 24 regents' counts, must be passed by every one trying the examination: (The number of counts each subject represents is given in parenthesis).

English (8). Geography, physical and political (2). Physiology and Hygiene (2). Drawing (2). American History and Civics (2). Plane Geometry (4). Algebra (4).

For an equivalent of the remaining 24 regents' counts the applicant may elect a sufficient number from any combination of the following:

Elementary French (4). Elementary German (4). Advanced French (6). Advanced German (6). Entrance Greek (11). Latin, Cæsar and Grammar (8). Latin, Vergil, Cicero and Composition (7). Physics (4). Chemistry (4). Botany (4). Geology (4). Zoology (4).

For definite information concerning what will be required in each subject, consult the Cornell University Register for 1898–1899, pp. 33 to 44. (The Register will be sent on application, see inside of the cover at the end of this announcement).

Admission to Advanced Standing.—Applicants for admission to advanced standing as members of the 2d or 3d year class must present the necessary educational qualifications for admission to the first year class (see p. 8), and must pass a satisfactory examination in all the work gone over, or offer satisfactory certificates of the completion of such work in other schools whose entrance requirements and courses of study are equivalent to those of this college. No person will be admitted to any advanced class except at the beginning of the college year in September.

Applicants for advanced standing from other colleges must send or present letters of honorable dismissal, and furnish the Director, Dr. James Law, with a catalog containing the courses of instruction in the institution from which they come with a duly certified statement of the studies pursued and their proficiency therein, and also a statement of the entrance requirements with the rank gained. To avoid delay these credentials should be forwarded at an early date in order that the status of applicants may be determined and information furnished concerning the class to which they are likely to be admitted.

Graduates of veterinary colleges whose requirements for graduation are not equal to those of the New York State Veterinary College may be admitted provisionally upon such terms as the faculty may deem equitable in each case, regard being had to the applicant's previous course of study and attainments. In this connection, attention is called to the legal requirements of academic and professional education for the practice of Veterinary Medicine in the State of New York. (See pp. 8–10, and Appendix B).

Admission to Advanced and Special Work.—The ample facilities for advanced and special work in the New York State Veterinary College, with allied departments in Cornell University, are open to graduates of this institution and of other Colleges whose entrance requirements and undergraduate courses are equivalent. (See pp. 8–10).

RESIDENCE AND REGISTRATION

Residence in Ithaca is required of all students. For leave of absence during term time, application should be made to the Director, Professor Law.

Registration.—At the beginning of each term (see calendar for exact day and date) the student must register with the University Registrar, Room 9 A, Morrill Hall. After registering with the University Registrar, he must register with the Secretary of the Veterinary Faculty, Dr. Fish, Room 11, 2d floor, of the Veterinary College.

REQUIREMENTS FOR GRADUATION

In order to receive the degree of Doctor of Veterinary Medicine (D.V.M.) the candidate must satisfy all the entrance requirements (pp. 8–9) and successfully pursue the courses named in the schedule of studies given below.

The thesis required in the last year (see schedule) is designed to give the student opportunity to investigate some subject in which he has become particularly interested, and to give him training in presenting the results of the investigation in proper literary form.

Final Examinations.—During the last week of the third term (T., W., June 6–7 in 1899), there will be given to all candidates for a degree, final examinations in the following subjects: Anatomy; Histology and Embryology; Comparative Physiology and Materia Medica; Medicine and Zymotic Diseases; Surgery and Obstetrics; Comparative Pathology and Bacteriology.

SCHEDULE OF THE COURSES LEADING TO THE DEGREE OF DOCTOR OF VETERINARY MEDICINE*

First Year.	1st Term.	2d Term.	3d Term.
Inorganic Chemistry	3. T. or Th., 12	3. T. or Th., 12	3. T. or Th., 12
Anatomy	2. T., Th., 9	2. T., Th., 9	2. T., Th., 9
Dissection	4. Th., F., p. m., S., a. m.	4. Th., F., p.m., S., a.m.	4. Th., F., p.m., S., a.m.
Microscopy and Histology	2. M., W., 8	2. M., W., 8	–
Laboratory and Quiz	3.	3.	–
Embryology	–	–	2. M., W., 8
Laboratory and Quiz	–	–	3.
Comparative Physiology	1. F., 10	1. F., 10	1. F., 10
Breeds and Breeding	2. M., W., 12	2. M., W., 12	2. M., W., 12
Materia Medica and Pharmacy Lab.	–	2.	–

Second Year.	1st Term.	2d Term.	3d Term.
Organic and Physiological Chemistry	2.	2.	2.
Anatomy	1. W., 9	1. W., 9	–
Dissection	5. W., Th., F., p.m., S., a.m.	7. T., W., Th., F., p. m., S., a. m.	–
Comparative Physiology	1. W., 10	1. W., 10	–
Laboratory	2.	–	–
Pharmacology	1. M., 10	1. M., 10	1 M., 10
Medicine	3. M , W., F., 8	3. M., W., F., 8	3. M., W., F., 8
Surgery	5. T., Th., F., 10–12, M., W., 11	3. M., W., F., 11	–
Obstetrics	–	2. T., Th., 11	4. T., W., Th., F., 11
Jurisprudence	–	–	1. M., 11
Sanitary Science or Parasitism	2. T., Th., 8	2. T., Th., 8	2. T., Th., 8
Bacteriology	1. M., 9	1. M., 9	1. M., 9
Laboratory	2.	2.	2.
Clinics, Medicine and Surgery	3.	–	6

Third Year.	1st Term.	2d Term.	3d Term.
Medicine	3. M., W., F., 8	3. M., W., F., 8	3. M., W., F., 8
Clinics, Medicine and Surgery	6.	6.	6.
Surgery	–	3. M., W., F., 11	5. M., T., W., Th., F., 11
Zootechnics	–	2. T., Th., 11	–
Toxicology	–	2. M., W., 9	–
Parasitism or Sanitary Science	2. T., Th., 8	2. T., Th., 8	2. T., Th., 8
Pathology	2. T., Th., 9	1. T., 9	–
Laboratory	–	1.	–
Meat Inspection	–	–	1. T., 9
Laboratory	–	–	1.
Therapeutics	–	–	1. W., 10
Research and Thesis	3.	3.	3.

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*If the hours for lectures, etc., are not given in the schedule, the time will be arranged with the class.

DEPARTMENTS, METHODS AND FACILITIES

In addition to the departments of the Veterinary College proper, the resources of the entire University are practically at the disposal of the college by the action of the board of trustees at the time when authorization was given for its location on the campus of the Cornell University (p. 5, under foundation). Among the facilities of the university of especial value to the Veterinary College may be mentioned the museums of Vertebrate and Invertebrate Zoölogy including Entomology, of Agriculture, of Botany and of Geology. The magnificent University Library, with its 200,000 bound volumes, 34,000 pamphlets and 600 current periodicals and transactions, is likewise as freely open to veterinary college students as to other university students (see also Flower Library).

The Departments, with their special equipment, facilities and methods, are given in the order in which the subjects are pursued in the course.

The Courses Required for Graduation are given in the schedule of studies, pp. 11–12, but the additional courses offered by the various departments are thought to be of especial value to veterinary students and may be elected by them whenever they have satisfied the requirements.

In all laboratory courses and clinics two and one half (2½) actual hours of laboratory practice are required for each hour of credit; e. g., for a three hour laboratory course, 7½ actual hours of laboratory work are required each week.

CHEMISTRY

The instruction in chemistry is given in the university chemical building, Morse Hall (plate VII). This building is used solely for chemistry and is fully equipped with modern apparatus and material. The laboratories furnish the most ample accommodation for practical work, and the lectures are fully illustrated by specimens, demonstrations and lantern views. The chemical library, in the building and accessible to students, contains complete sets of all important journals, and is very fully supplied with works of reference and standard books on chemistry and allied subjects.

For a full account of the department with its 40 or more courses, one may consult the University Register or the special announcement of the chemical department (see 3d page of cover).

Courses

These are the courses pursued by veterinary students and must be taken in the order here indicated.

1. **Elementary, general inorganic chemistry.** Three hours weekly throughout the year. This consists of one lecture (T. or Th. 12), one recitation and one hour of laboratory work. Professors CALDWELL and TREVOR and Instructor ———.

20. **Organic chemistry.** Fall term. Two hours. (Time to be arranged with class). Professor ORNDORFF.

45. **Physiological chemistry.** Winter and spring terms. Two hours. (Time to be arranged with class). Professor ORNDORFF.

41. **Toxicology,** qualitative and quantitative. Lectures. Winter. M., W., 9. *Ch. L. R.*, *2*. Dr. CHAMOT.

ANATOMY

The instruction in anatomy is by lectures, recitations and laboratory work, the latter being by far the most important. The objects of the lectures are to present facts of general morphology as related to the horse and other domestic animals; to direct attention, as far as possible, to the correlation of structure and function of the various organs of the body and to emphasize the anatomical relations of those parts most subject to surgical operations. The main reliance, however, is placed upon the work done in the laboratory. Thorough practical knowledge of anatomy can be acquired in no other way, and every student will be required to dissect all the parts of the horse, or ox, and such other of the domestic animals as may prove most expedient, before taking his final examinations.

The courses in anatomy extend through two years. The first year is devoted to the study of the bones, joints, muscles and certain of the viscera; the second year, to the vascular and nervous systems and the organs of special sense.

In the study of the osseous and muscular systems, the skeletons in the laboratory, and the Auzoux models afford valuable assistance. In the museum there are accumulating series of specimens which illustrate, in a typical manner, some of the more important anatomical features of the various domestic animals.

The department of anatomy occupies the whole of the east wing—a structure 99 feet by 40 feet and one story in height (Plate I). The floors are of impermeable cement; the walls are lined by enameled white brick and the ceilings covered with sheet steel. The main laboratory is 54 feet by 40 and 22 feet in height. It is well lighted by skylights and by electricity. It is heated by steam and hot air. The ventilation is nearly perfect, fresh air being forced into the room by large fans situated in the basement. The entire volume of air in the laboratory can be changed every 5 minutes without creating any perceptible draft. This constant supply of an abundance of pure air is an especially important feature in a dissecting room. The laboratory is supplied with mounted skeletons and other osteological material, a large refrigerator, set of Fairbanks scales, weighing either kilograms or pounds, injecting and other laboratory apparatus.

In addition to the general libraries of the University and of the college, (p. 30) there are upon the book shelves, in the laboratory, dictionaries, both English and medical, a complete set of the Reference Handbook of the Medical Sciences, standard text-books of anatomy, physiology, physics, etc., for the special use of the students in the laboratory, as books of reference.

Connected with the main laboratory is a similar one, 22 feet by 22, which is used as a preparation room and as a private laboratory (Plate I).

Opening into the laboratories is a locker-room, containing lockers for the accommodation of 150 students, and off from this room are the lavatories, etc. (Plate I).

The city and surrounding country furnish any quantity of anatomical material, and in almost endless variety; horse, ox, sheep and swine, dog, cat, rabbit and guinea-pig, both adult and in all stages of fetal development.

The facilities for the study of anatomy are limited only by lack of preparation and time, on the part of the student.

After finishing the required work, students are encouraged to undertake some piece of original work, in either comparative or surgical anatomy.

Courses

Of the following courses, the two first are required of the veterinary students; the others are general courses:

1. **General and descriptive veterinary anatomy.** Fall, winter and spring. Six hours. Two lectures, T., Th., 9; laboratory work: W., Th., F., P. M.; S., A. M. Dr. HOPKINS and Demonstrators.

2. **Descriptive veterinary anatomy.** Fall and winter. One lecture, W., 9. Laboratory work: Fall, 5 hours, W., Th., F., P. M.; S., A. M.; Winter, 7 hours, T., W., Th., F., P. M.; S., A. M. Dr. HOPKINS and Demonstrators.

   This course must be preceded by course 1.

3. **Anatomical methods and gross anatomy.** Fall term. Three hours. One lecture and laboratory work. S., 12. Dr. HOPKINS.

4. **Advanced anatomy.** Winter Term. Three hours. One lecture and laboratory work. S., 12. Dr. HOPKINS.

   Course 4 must be preceded by course 3 or its equivalent.

5. **Human anatomy.** Laboratory work throughout the year. Dr. Hopkins.

   This course is open to those who have had one or more of the preceding courses.

6. **Research and thesis.** Three hourse throughout the year. Dr. Hopkins.

In this course, reports of progress will be made from time to time before the college seminary. See p. 30.

COMPARATIVE PHYSIOLOGY

It is the aim of this department to select from a wide field of interesting topics, those which will be of greatest use to the student, in preparation for a more complete understanding of *normal* functions, as distinguished from the pathological changes so frequently encountered in the practice of human and veterinary medicine.

The fact that it is essential to know the natural before undertaking the diagnosis of unnatural conditions is thoroughly emphasized.

The lectures are supplemented as fully as possible by diagrams, preparations and experiments.

. In addition to the didactic instruction a course in the laboratory is provided, which is intended to supplement and extend the lecture courses. The laboratory of comparative physiology is located, for the present, upon the second floor of the main building (Plate II). It is well lighted and equipped with necessary reagents and apparatus, additions to which are made as needed. Students are rendered every assistance in the comprehension of the fundamental parts of their work without, however, losing sight of the fact that personal observation and interpretation are most essential for a proper scientific training. Every encouragement is offered, to those properly fitted, to pursue their work beyond that given in the regular course. As a part of the equipment may be mentioned a kymograph, sphygmograph, induction coil and various batteries, centrifuges and other apparatus for urinalysis.

To those intending to be teachers, as well as those contemplating the study of human or veterinary medicine, the course will be especially useful as it deals with experiments on the functional changes going on in the human and animal body, the exposition of which, is none the less important because, in many cases, of an elementary nature.

Courses

1. **The digestive functions, circulation, respiration and excretion.** The work given in this course precedes quite logically that of Pharmacology and Therapeutics. Lectures, one hour each week through the year. F., 10. Dr. Fish.

2. **The functions of the muscular and nervous systems and reproduction** are considered in this course, which is a direct continuation of course one. Lectures one hour each week through the fall and winter terms. W., 10. Dr. FISH.
3. **Practical work in the laboratory.** A large proportion of the work is devoted to the digestive system. Artificial digestive juices are tested upon the various kinds of food by the student and careful notes kept of the various changes. Those who can devote more than the required time are taught how to make the various digestive extracts. A course in urinalysis is also required in order that students may familiarize themselves with some of the more common but important processes occurring during health and disease. Experiments in blood pressure and upon the muscular and nervous systems will be carried on as time and opportunity permit. Fall term. Two hours. M., 2–5, W., 9–11. Dr. FISH, and Assistant ———.
4. **Research and thesis.** Three hours throughout the year with occasional reports before the College Seminary, p. 30. Dr. FISH.

MICROSCOPY, HISTOLOGY AND EMBRYOLOGY

As indicated by the following courses, this department offers elementary and advanced instruction in the theory and use of the microscope and its accessories, in photo-micrography, in vertebrate histology, vertebrate embryology and in histologic and embryologic technique ; and opportunities for research in all of these subjects.

The rooms for the use of this department are on the third floor, and as shown by the plan (Plates III, V), they are ample and almost perfectly lighted. They consist of a large general laboratory, a research laboratory and the private laboratories of the professor and instructor in charge where also special demonstrations of difficult subjects are given to small groups of students.

The material equipment consists of a good supply of modern microscopes each one of which is fitted with a low and medium power dry objective and a 2 mm. homogeneous immersion objective. Camera lucidas, polariscopes, micro-spectroscopes, photo-micrographic cameras, and other special apparatus are in sufficient numbers to give each student opportunity for personally learning to use them, and for applying them to any special study in which they are called for. The general and research laboratories are large, and are equipped with microtomes, incubators, aquariums, etc. The collection of histologic and embryologic specimens is extensive and constantly increasing. Full sets of typical specimens are available for study and comparison by the students.

The aim of the department is to bring the student into direct contact with the truths of nature, and hence, while there are lectures to give broad and general views, there is a large amount of laboratory work in which the facts are learned at first hand, and the methods and manipulations necessary for acquiring the facts are practiced by each student. It is recognized that less ground can be covered in a given time in this way, but it is believed, and experience has confirmed the belief, that the intellectual independence and the power to acquire knowledge direct from nature which is gained by this personal work, is of far higher value than the facts and theories that might be learned in the same time from books and lectures alone, or from specimens prepared by some other individual.

This lake region with its rich and varied fauna is especially favorable for investigations in the histology and embryology of all the main groups of vertebrates and the proximity of the abattoirs in the city makes it possible to obtain abundant material for the study of the development of the sheep, cow and pig. The college clinic and the department of anatomy supply material for the embryology of the cat and dog so that the opportunities for research upon the development of the domestic animals are excellent. Every encouragement is given for the fullest utilization of these opportunities by students in the preparation of theses and for special investigations.

Courses

1. **Microscope and microscopical methods.** First half of fall term. Two hours. Two lectures, one quiz and 6½ actual hours of laboratory work. This course forms the basis for all the subsequent work given by the department. It is also designed to give a knowledge of the theory and use of the microscope and its accessories which would be advantageous for the work of any department where the microscope is employed. M., W., 8. Professor GAGE, Instructor KINGSBURY and Assistants CLAYPOLE and MIX.

   This course counts two university hours for the term, although the work must all be done in the first five weeks.

2. **Vertebrate histology.** Last half of fall term (3 hours) and the winter term (5 hours). Eight hours. Two lectures, one quiz and 6½ actual hours of laboratory work. In this course are given the elements of the fine anatomy of the domestic animals and of man. It includes also methods of histologic investigation and demonstration. M., W., 8. Professor GAGE, Instructor KINGSBURY and Assistants CLAYPOLE and MIX.

   This is a continuation of course 1 and is open only to those who have taken course 1, and have taken or are taking courses in anatomy and physiology.

3. **Vertebrate embryology.** Spring term. Five hours. Two lectures, one quiz and 6½ actual hours of laboratory work. This course deals with the elements and methods of embryology in man, the domestic animals and the amphibia. M., W., 8. Professor GAGE, Instructor KINGSBURY and Assistants CLAYPOLE and MIX.

   Course 3 is open only to those who have pursued courses 1 and 2.

4. **Research in histology and embryology.** Laboratory work with Seminary throughout the year (see p. 30 for the College Seminary). This course is designed for those preparing theses for the baccalaureate or advanced degrees and for those wishing to undertake special invigations in histology and embryology. Professor GAGE and Instructor KINGSBURY.

   Course 4 is open only to those who have taken courses 1, 2 and 3, or their equivalent in some other University. Drawing (course 9, in Mechanical Engineering, or its equivalent) and a reading knowledge of French and German are indispensable for the most successful work in this course.

   Subjects for baccalaureate theses should be decided upon if possible during the spring term of the junior year so that material in suitable stages of development and physiologic activity may be prepared.

5. **Structure and physiology of the cell.** Fall term. Two hours. Laboratory work with lectures. This course in Cytology is designed for advanced students, and gives the fundamental facts and principles relating to cell structure and activity. It also serves to train students in the more exact and refined methods of histology. Dr. KINGSBURY.

   Course 5 is open only to students who have had courses 1, 2 and 3 or their equivalent.

6. **Microscopy and technique, advanced.** Spring term. Two hours. Laboratory work with lectures. In this course special instruction will be given in the theory and use of the more difficult and important accessories of the microscope *e. g.*, the micro-spectroscope, the micro-polariscope, the apertometer, the photo-micrographic camera and the projection microscope; and the more difficult technique in histology and embryology. Professor GAGE and Instructor KINGSBURY.

   This course is open only to those who have taken courses 1, 2, and if photo-micrography is desired, an elementary knowlege of photography like that given in course 9, Department of Physics, is necessary.

NOTE.—For the work of this department the student will find a knowledge of Latin and Greek of the greatest advantage. A year's study of Latin, three to five recitations per week, and of Greek, Goodell's Greek in English, or Coy's Greek for beginners, would represent the minimum amount needed. For all courses, the ability to draw well free hand, and a good reading knowledge of French and German are desirable, and for research work almost indispensable.

THE COLLEGE OF AGRICULTURE—BREEDS AND BREEDING

The College of Agriculture comprises the Departments of General Agriculture ; Animal Industry and Dairy Husbandry (Plate VIII.); Horticulture and Pomology ; Agricultural Chemistry ; General and Economic Entomology and the Agricultural Experiment Station.

The University grounds consist of 270 acres of land, bounded on the north and south by Fall Creek ravine and Cascadilla gorge respectively. One hundred and twenty-five acres of the arable land are devoted to the use of the Agricultural Department. This part of the domain is managed with a view not only to profit, but also to illustrate the best methods of general agriculture. A four year's rotation is practiced on the principal fields ; one year of clover, one of corn, one of oats or barley, and one of wheat. A dairy of twenty cows, a flock of sheep, some fifteen horses and colts, and other livestock are kept upon the farm. Nearly all of these animals are grades, bred and reared with the single view of giving object lessons which can be practiced with profit by the students on their return to their homes. A four story barn provides for housing all the animals, machinery, tools, hay, grain, and manures. The stationary thresher, feed-cutter, chaffer, and other machinery are driven by steam power. The barn also furnishes many facilities for carrying on investigations in feeding and rearing all classes of domestic animals.

The barn is also furnished with a well equipped piggery and tool house. Not far from the main barn have been constructed four buildings with suitable yards and appliances for incubating eggs and rearing domestic fowls.

The agricultural class room is provided with a collection of grains and grasses, implements of horse and hand culture, and various appliances for carrying on instruction and conductiug investigations. The whole plant is managed with a view to the greatest economy consistent with the greatest efficiency in imparting instruction.

Courses

The courses in the college attended by veterinary students are given by the department of Agriculture proper and are as follows :

3. **Horses,** breeds and breeding, feeding, education, care and driving. Fall term. Two hours. M., W., 12. (Morrill Hall, room 19). Professor ROBERTS.

10. **Animal industry.** Principles of breeding, history and development, improvement and creation of dairy and beef breeds of cattle (dairy building, Plate VIII); principles of feeding, care, selection and management of dairy and beef cattle. Winter and spring terms. Two hours. Practice, one hour by appointment, for those electing it. M., W., 12. Assistant Professor WING.

PHARMACOLOGY

The term is employed in its comprehensive meaning to include not only the materials of medicine, but their preparation, use and physiological action. Allowing for certain exceptional differences, there is, in general, a great resemblance in the action of drugs in the lower animals and in human beings. The efficiency of new drugs is commonly tested upon the lower forms before being applied to man. For a broad and enlightened human practice a medical course dealing with the treatment of lower animals offers a most advantageous preparation.

The more important drugs and preparations as given in the U. S. Pharmacopœia are studied, including the new ones which appear from time to time.

The clinics furnish abundant material for the use of medicines and the study of their actions.

The physiological changes in certain tissues resulting from the toxic doses of many drugs are as yet unknown, and opportunities for research are abundant in this field.

Courses.

1. **Materials of medicine.** A study of the uses and actions of the various drugs and their preparation. A varied collection of the crude drugs and their official preparations is available and examined at the recitations. The course is conducted in the form of lectures and frequent examinations. One hour each week throughout the year. M., 10. Dr. FISH.

2. **Materia medica and pharmacy.** The work in this course is divided into three parts. One month is devoted to the study of a selected group of inorganic drugs; the second month to the study of certain of the organic drugs and their official preparations; the third month to making pharmaceutical preparations, such as syrups, emulsions, spirits, liniments, tinctures, fluid extracts, extracts, ointments, pills, and others.

   In their study, the students are required to write concise notes of the physiological action of the drugs examined. In addition to this each student will have practical experience in writing and compounding prescriptions. The importance of a discriminating and accurate system for dispensing medicines is kept well in mind. Two hours per week. Winter term. M., 2-5, W., 9-11. Dr. FISH and Assistant MYERS.

3. **Therapeutics.** The treatment and cure of diseases. This subject, standing along with pathology, unites physiology, anatomy, chemistry and botany with medicine and surgery. It is therefore desirable to have some knowledge of these branches in order to obtain a full appreciation of the means employed in the restoration of health. Lectures one hour each week. Spring term. W., 10. Dr. FISH.

   This course must be preceded by the first year course in physiology, or its equivalent.

4. **Research and Thesis.** Three hours throughout the year. Dr. FISH.

   Reports of progress are to be made from time to time before the college seminary. See page 30.

VETERINARY MEDICINE ; ZYMOTIC DISEASES, VETERINARY SANITARY SCIENCE ; PARASITES AND PARASITISM.

The course in Veterinary Medicine deals with the purely medical diseases of the different genera of domestic animals,—including the various constitutional, dietetic and toxic affections and the maladies of the different systems of organs—digestive, respiratory, circulatory, urinary, cutaneous, nervous and visual. The lectures and recitations extend over the two last years of undergraduate study. They are illustrated by diagrams, by dry and wet museum specimens and by subjects presented in the clinics. The special value of the course lies in the wide scope which includes equally all species, the aim being not to make students hippopathologists only, but zoöpathologists or more definitely veterinary pathologists. The site of the college between the city of Ithaca and a well stocked agricultural environment is well calculated to carry out this aim.

In course 2 is treated the general subject of zymosis and contagion ; the microbiology of diseases ; the accessory causes such as special condition of soil, culture, climate, season, weather, trade, migration, war, consumption of animal food, etc.; the diagnosis of the different plagues, the various methods of control and suppression by the individual owner, the municipality, town, county, state, or nation ; and the exclusion of pestilences from a country. Each zymotic disease is made a special study, and its transmissibility to different genera of animals, from animals to man, and from man to animals together with the susceptibility of each genus to immunization and the best known means of securing this receive due attention. Enzoötic affections receive the same attention, and the necessary preventive measures in connection with soils, drainage, buildings, exposures, wells, ponds, marshes, factories and other local causes are fully dealt with. Illustrative diagrams, preserved specimens and, when opportunity offers, fresh subjects and specimens are employed for demonstration.

In the course on parasites and parasitism, the zoölogical place of the parasite in nature, its life history in connection with the animal body and apart from it, the lesions and symptoms caused, the genera susceptible, and its diagnosis, destruction and prevention are fully considered. An extensive collection of the parasites of domestic animals is available for demonstration, and where these are lacking, diagrams and illustrations will be used.

The medical clinic covering this whole field, and drawn from city and country alike, furnishes the greatest possible variety as regards genus and species of patient, while the hospital and isolation wards furnish a supply of cases that can be watched from day to day. Individual cases are placed in charge of senior students who keep a record of symptoms and treatment. This record is open to the entire class so that all can profit equally by every case. Outpatients on the University farm and in the city can also be availed of for clinical uses.

Courses

1. **Veterinary medicine: principles and practice.** Fall, winter and spring. Three hours. M., W., F., 8. Professor LAW.

   This course extends over two years.

2. **Contagious diseases; veterinary sanitary science.** Fall, winter and spring. Two hours. T., Th., 8. Professor LAW.

   [This course will be given to second and third year men in 1900-1901. See the following]:

3. **Parasites and parasitic diseases.** Fall, winter and spring. Two hours. T., Th., 8. Professor LAW.

   [This course will be given to second and third year men in 1899-1900. See the preceding].

4. **Clinical veterinary medicine;** second year men. Fall, three hours spring, six hours. Professor LAW.

5. **Clinical veterinary medicine;** third year men. Fall, winter and spring. Six hours. Professor LAW.

6. **Research and thesis.** Three hours throughout the year. (See the College seminary, p. 30). Professor LAW.

SURGERY, OBSTETRICS, ZOÖTECHNICS AND JURISPRUDENCE

Surgery

The instruction in Surgery is designed to equip the student with both theoretical and practical knowledge thorough in every respect.

The class room work extends through the second and third years and consists of lectures, or of recitations supplemented by lectures.

One term of fourteen weeks, five hours per week is given to General Surgery, including general surgical pathology, the infection of wounds, surgical therapeutics, aseptic and anti-septic treatment of wounds, the handling and restraint of animals.

Special Surgery extends over the remainder of the course considering in detail the surgical disease of the various parts of the body, their causes, nature, diagnosis and treatment, to which is added an extended course in castration and spaying. The facilities for the instruction are in keeping with the general aim and scope of the college.

Abundant instruments and apparatus of both home and foreign patterns are provided for illustrating the lectures ; while the college museum contains abundant material which is freely used for exemplifying surgical pathology.

The college becomes the possessor of the extensive pathological collection of the veterinary department of Cornell University, accumulated during nearly thirty years, to which have been added many valuable preparations contributed by veterinarians, and secured from the college clinics.

The course in practical surgery extending through the second and third years is given in the college clinics.

The location of Cornell University and the organization of the Veterinary College gives unusual opportunities for clinical instruction in the number and character of cases, the variety of species of animals and the availability of each case for purposes of instruction.

As each member of the veterinary faculty is exclusively employed by the college and is in no degree dependent upon private practice, all reasonable effort is exercised to lead owners of livestock to enter cases in the free clinics instead of diverting special cases to private practice.

The college clinics being wholly free, regardless of the value of the animal, the severity of the proposed operation or the owner's ability or willingness to pay, obviates the usual disadvantages of free clinics where largely inferior animals the property of poor and frequently careless people are presented in a state of health and with general surroundings not propitious for testing the value of a line of treatment or of following it to a successful issue, failing consequently to impart the desired knowledge, interest or enthusiasm to the student ; while in our free clinics the student has to deal with animals of the same general character and value as those met with in ordinary veterinary practice.

The thickly inhabited agricultural country about Ithaca furnishes an abundance of clinical material of all classes of disease not alone of horses and dogs but of every species of domesticated animals.

Numerous cases, especially those of major surgical operations, are drawn from a radius of twenty-five to fifty miles thus placing a large and important stock-producing area tributary to our clinics.

All patients are admitted subject to our discretion as to whether an operation shall be performed by a member of the staff or by a student, the general plan being for the professor in charge to perform a sufficient number of operations to illustrate methods in a given case, after which they are performed by students in turn, under immediate supervision, aiming in this way to thoroughly fit men to perform any desired operation supported by that skill and confidence which actual work alone can give.

Practical Surgery is required of all second and third year students, the course extending through both years.

The second year student devotes three hours per week to clinics during the fall and six hours per week in the spring term, during which period he is required to keep in order and sterilize operating instruments, apply dressings to wounds, prepare and apply plaster of Paris and other fixation bandages to various parts, and to perform such surgical operations as opening abscesses, excising simple tumors and controlling the consequent hemorrhage, castration and spaying of dogs and cats, castration of normal horses, rasping, cutting and extracting irregular teeth and other operations of a similar grade.

The third year student devotes six hours a week throughout the year to clinics, repeats and perfects himself in the operations of the second year, makes examinations and diagnoses, administers chloroform to the larger animals and personally performs the major surgical operations, such as the removal of extensive tumors, the more difficult cases of dental surgery, ovariotomy in mares and cows, arytenectomy, tenotomy and other operations of a similar class. This work is carefully graded and the student advanced as rapidly from the simpler to the more difficult operations as is consistent. While the cadaver is used as needed for demonstrating surgical anatomy and procedure it is the policy of the department to require the student to perform the operations upon living animals of commercial value and for curative purposes.

Each student must acquire practical and experimental knowledge of surgery parallel to his theoretical training in the class room and is required to demonstrate his ability in the operating theatre.

All patients upon which important operations are performed are detained in the surgical ward until the crisis of the operation has been passed, and the student operating is required to follow his work and is held personally responsible for the proper after treatment of the patient.

All needed instruments and appliances for instruction in practical surgery are provided, while the surgical ward and operating room elsewhere described are commodious and perfect in every appointment. The most modern appliances for securing and controlling animals such as operating tables, stocks and casting apparatus are fully provided (Plate VI).

Special investigations in relation to surgical diagnosis, pathology and treatment are constantly being carried on, the material for such work being abundant. Special apparatus for investigations is supplied as needed, and advanced students are called upon to actively assist in the various investigations, becoming not only more familiar with surgical manipulations but inspired to study methodically and effectively the many questions in surgical pathology and therapeutics, and thus become better prepared to cope promptly and properly with the many atypical cases constantly occurring in general practice.

OBSTETRICS

A thorough course of obstetrics is given during the second year, consisting chiefly of lectures including two hours per week during the winter term and four hours per week in the spring term.

The course is preceded by an extended study of embryology during the first year which serves as a foundation for the proper consideration of the subject. Obstetric anatomy and physiology have also been in a measure mastered during the first year in the departments of anatomy and physiology; all three are then reviewed with special reference to obstetrics, teratology, and diseases of new-born animals.

The lectures are based in arrangement on Fleming's obstetrics supplemented by personal experience. Models and valuable museum preparations are used for illustration. While our location permits of the securing of much valuable clinical material, such obstetric cases as can not be brought to the college clinic are attended at the owner's premises by the class, under the personal direction of the professor in charge; the students are in this way brought into actual contact with a class of cases the proper handling of which cannot otherwise be effectively taught.

ZOÖTECHNICS

The subject of Zoötechnics is chiefly taught in the College of Agriculture of Cornell University, covering the various breeds of domestic animals, the methods of breeding and handling.

Supplementary to this instruction a course of lectures covering one term two hours a week will be given dealing especially with the breeding, care and management of animals in relation to disease, hereditary disease and vices and a general resumé of the subject of breeding as related to veterinary science

JURISPRUDENCE

A course of two lectures a week is given during the winter term of the second year, dealing with the general responsibilities of veterinarians to the public, to stock owners and professional colleagues; methods of making and recording examinations for soundness, and a special study of physical diagnosis and prognosis as related to this subject.

Practice is given from time to time in the work at the clinics.

Courses

Students are not admitted to the third year in Surgery unless they have completed courses 1 and 2 in physiology, anatomy and histology.

1. **General veterinary surgery.** Fall term. Five hours. M., W., 11, T., Th., F., 10-12. Professor WILLIAMS.

   Course 1 is open only to those who have completed courses 1 and 2 in histology and course 1 in physiology.

2. **Special surgery** (head, neck, chest and abdomen). Winter. Three hours. M., W., F., 11. Professor WILLIAMS.

   Course 2 is open only to those students who have completed course 1 in anatomy, physiology and histology.

3. **Veterinary obstetrics.** Winter. Two hours. T., Th., 11. Professor WILLIAMS.

   Courses 3 and 4 must be preceded by course 3 in embryology.

4. **Veterinary obstetrics.** Spring, Four hours. T., W., Th., F., 11. Professor WILLIAMS.

5. **Veterinary jurisprudence.** Spring. One hour. M., 11. Professor WILLIAMS.

   Courses 2-5 will be given to second and third year men in 1900-1901. See under course 10].

6. **Clinical veterinary surgery**; second year men. Fall, three hours, spring, six hours. Professor WILLIAMS.

7. **Clinical veterinary surgery**; third year men. Fall, winter and spring. Six hours. Professor WILLIAMS.

8. **Special surgery** (limbs and skin). Winter. M., W., F., 11. Three hours. Professor WILLIAMS.

9. **Zoötechnics.** Winter. Two hours. T., Th., 11. Professor WILLIAMS.

10. **Special surgery** (genito-urinary organs, castration). Spring. Five hours. M., T., W., Th., F., 11. · Professor WILLIAMS.

    [Courses 9-10 will be given to second and third year men in 1899-1900. See under course 5].

11. **Research and thesis.** Three hours throughout the year (see College Seminary, p. 30). Professor WILLIAMS.

COMPARATIVE PATHOLOGY, BACTERIOLOGY AND MEAT INSPECTION

The instruction in pathology and bacteriology is given by means of lectures, recitations and laboratory work. In general pathology the students are drilled in the definitions and in the nature of the morbid changes included in this subject. In general pathology Ziegler's text book is followed but supplemented by the results of more recent investigations as they are found in current literature and special monographs. Pathological histology will receive special attention. In this work the students will be taught, by actual laboratory work, the methods of preparing permanent preparations and of examining diseased tissues in the fresh condition. They will have the privilege of studying blood and of counting the red and white corpuscles. For this highly important work the laboratory is especially well equipped. For the general arrangement of the laboratory see Plates III and IV.

The fall term in bacteriology is devoted to methods. The laboratories are well supplied with the best modern apparatus. The students will, under proper supervision, prepare culture media, make various cultures and study the morphology of bacteria in both the fresh (living) condition and in stained cover-glass preparations. In fact, all of the technique necessary for a practical working knowledge in bacteriology will be carefully covered. In the winter the more important species of pathogenic and economic bacteria will be studied. The special methods for the bacteriological analysis of milk and water, and those which are necessary for investigating diseases, such as tuberculosis, anthrax, glanders and the infectious swine and poultry disorders will receive careful attention. In the spring term each student will have an opportunity of carrying out independently some investigation, thus applying bacteriological methods in a practical manner. The lectures in the spring term will deal with applied bacteriology. In this course will be considered disinfection, sterilization, the means by which pathogenic bacteria are disseminated, protective inoculation, serum therapy in animal diseases, and other kindred subjects.

For those who wish to do advanced work in either of these subjects excellent facilities are afforded by way of a separate room and apparatus. As we are constantly investigating outbreaks of infectious diseases, among animals in the state, an abundance of working material is assured. This enables the student to come into touch with actual work in bacteriological diagnosis.

As is seen from the above, it is the aim of this department to drill the students by means of actual work in the technique necessary for them to successfully apply in their future professional duties the knowledge acquired in the study of pathology and bacteriology. To this end the courses of instruction have been carefully arranged, and for this purpose the laboratories have been equipped.

Courses

1. **General pathology.** Fall term. This course is open to students who have had Normal Histology and at least one year's work in Anatomy and Physiology. Lectures and recitations. Two hours. T., Th., 9. Professor MOORE.

2. **Pathology of infectious diseases.** Winter term. This course is open to students who have taken Course 1 and have taken or are taking Course 4. Lectures and laboratory work. Two hours. T., 9. Professor MOORE, Instructor REED and Assistant WRIGHT.

3. **Meat inspection.** Spring term. This course is open to students who have taken Courses 1 and 2. Lectures and laboratory work. Two hours. T., 9. Professor MOORE and Instructor Reed.

4. **Bacteriology.** Lectures and laboratory work. Three hourse per week throughout the year. M., 9. Professor MOORE, Instructor REED and Assistant WRIGHT.

5. **Research in pathology and bacteriology.** Laboratory work with lectures and seminary (see p. 30 for College Seminary), throughout the year. Professor MOORE and Instructor REED.

   The course is designed for those preparing theses for the baccalaureate or advanced degrees and for those wishing to undertake original investigation in Pathology and Bacteriology. This course is open to students who have taken Courses 1 and 2 if the work is in Pathology or Course 4 if in Bacteriology, or their equivalent in some other university. Elementary chemistry and a reading knowledge of French and German are indispensable for successful work in this course.

ADVANCED AND RESEARCH WORK

The opportunities for study and investigation offered to advanced students in the college and in the various departments of Cornell University are very great. The situation of the college gives it a great variety as well as an abundance of material for research, and the facilities for prosecuting the work are ample. Each student, as a part of his last year's work, must write a thesis giving the results of a personal investigation upon some subject in veterinary medicine. (See under requirements for graduation p. 11). To students preparing theses and to graduate students every opportunity and encouragement will be offered for carrying on independent investigations. (For special courses offering thesis and research work see under the various departments pp. 13–29).

THE ROSWELL P. FLOWER LIBRARY AND OTHER LIBRARY FACILITIES

The Flower Library.—By a gift of five thousand dollars ($5,000) to Cornell University for the purpose, the *Honorable Roswell P. Flower* laid a broad foundation for a thoroughly good working, veterinary library. The books and periodicals obtained with this fund have been considerably increased by donations from various persons and by books obtained from the income of the college ; the Veterinary Library is also largely supplemented by the University Library, and by loans of books and periodicals therefrom.

The Periodical Room (Pl. II) at the college is open daily from 7 A. M. to 6 P. M., and contains the leading veterinary and medical periodicals in English, French and German. In it are also found Foster's Encyclopædie Medical Dictionary and the Index Catalog of the Medical Library of the Surgeon General's Office.

The Flower Library Room (Pl. II) is open for free consultation, Tu. and Sat., 10–12, Thur., 3–5, and contains most of the books and bound periodicals belonging to the library or loaned to it from the University Library. Books bearing especially upon the work of any laboratory course, are kept upon the book shelves of the laboratory where they are constantly accessible. Books may be drawn from the library for home use by veterinary students.

The books and bound periodicals and transactions in the University Library (Pl. IX) upon veterinary and human medicine, with allied sciences, exceed ten thousand (10,000) volumes ; and over 600 periodicals and transactions are received. Many of them pertain directly to medicine and biology. To all the University library facilities the veterinary students have free access in the library reading room, which is open daily from 8 A. M. to 11 P. M.

SEMINARY

The Veterinary College Seminary, which meets every two weeks, has for its membership : (1) All members of the instructing body ; (2) All students preparing theses in the college ; (3) All students doing graduate and research work.

The purpose of the Seminary is : (a) To discuss the methods for advanced and independent work, that is such work as is expected of those preparing theses or prosecuting any special investigation ; (b) The presentation of the results of investigations and the progress of knowledge in the various departments ; (c) Reports by students of the progress of their work.

Naturally the members of the faculty take a leading part in (a and b) but as soon as the advanced work of students is well begun, the students present before the Seminary the results of their work.

At each meeting, after the report, the subject is open to all the members of the Seminary for questions and discussion. From the experience of the last three years it is believed that the Seminary is one of the most important parts of the college curriculum for preparing students for the duties and responsibilities of an honorable professional career.

SOCIETY OF COMPARATIVE MEDICINE

This is a student society organized for the purpose of giving mutual aid in gaining general and special medical knowledge, facility in conducting the exercises of the meetings and in presenting papers and discussions in a clear and forcible manner before an audience.

TUITION AND LABORATORY FEES

In the words of the law for the administration of the New York State Veterinary College: "No tuition fee shall be required of a student pursuing the regular veterinary course, who, for a year or more immediately preceding his admission to said veterinary college shall have been a resident of this state."

For students, not residents of New York State, the tuition is $100 per annum, $40 to be paid at the beginning of the fall, $35 at the beginning of the winter and $25 at the beginning of the spring term.

Laboratory fees.—Every person taking laboratory work is required to pay for the material actually used. This will average approximately $25 per year.

At the end of the course a fee of $5.00 is required of each student receiving a degree.

Living expenses in Ithaca vary from $3.50 to $10 per week. Books, instruments, stationery, etc., cost $10 and upward per year.

THE HORACE K. WHITE PRIZES

These prizes, established by Horace K. White, Esq., of Syracuse, are awarded annually to the most meritorious students in the graduating class of the college. One prize of $15 to the first in merit; to the second in merit, a prize of $10.

POSITIONS AS DEMONSTRATOR

At present one or more demonstrators in Anatomy are appointed each year at a salary of $125.00. These positions are open to members of the graduating class and to graduates who have shown special proficiency in anatomy.

APPENDIX A

Openings for Veterinarians in America

1st. In the United States Cavalry and Artillery there is a demand for a limited number of veterinarians.

2nd. In the Bureau of Animal Industry, U. S. Department of Agriculture, a number of veterinarians are employed professionally, as live-stock agents and inspectors ; inspectors and superintendents of quarantine stations ; investigators in bacteriology and pathology, and as meat inspectors. (By an act of Congress the federal meat inspectors must be graduates of a veterinary college).

3rd. In the different States there are appointments as State Veterinarians, and in some as County or District Veterinarians, to attend to preventable diseases of animals.

4th. The time is not far distant when each municipality must have its veterinary inspectors of markets, abattoirs and butcher meat, as well as of milk and other dairy products.

5th. Accomplished veterinary pathologists are needed in all the states to serve on tuberculosis and other commissions, so that work in this field may be conducted intelligently and successfully on scientific lines. Such work on our herds can only be carried on by those specially trained in the anatomy, physiology, hygiene and pathology of the lower animals.

6th. Educators in comparative pathology are wanted in Agricultural and Veterinary Colleges, and experiment stations, and must ere long be in demand for every Medical College which aims to keep abreast of the times.

7th. There are always openings in the wide field of private veterinary practice. With a ratio of three farm animals to every human being, and with less than one veterinarian to every ten doctors of medicine for man, the balance of opportunity seems to be largely in favor of the veterinary practice, and this preponderance must steadily increase with the recovery of stock values and with the increase in numbers of farm animals.

New York has about 2000 veterinary practitioners, and with an average of 30 years of practice, will demand 66 new practitioners yearly to keep the ranks full. Under the new requirements the regents licences to practice, granted after examination, were but 7 in 1896–7 and 8 in 1897–8. This leaves an apparent deficiency of 117 in two years, which must be made up from the graduates in the State Colleges, or by candidates from outside the State, who can show an equally high, matriculation and professional education. As the veterinary Colleges in other States do not come up to the legal standard set for New York, the main supply must come from colleges within our own commonwealth. The result must be that our stock owners will be furnished with better veterinary service and that the accomplished veterinarian will secure a constantly increasing and more remunerative practice.

APPENDIX B

Legal requirements for license to practice veterinary medicine and surgery in the State of New York. Extracts from article X, Ch. 860, laws of New York, 1895.

§ 171. "*Qualifications for practice.*—No person shall practice veterinary medicine after July one, eighteen hundred and ninety-five, unless previously registered and legally authorized, unless licensed by the Regents and registered as required by this article; nor shall any person practice veterinary medicine who has ever been convicted of felony by any court, or whose authority to practice is suspended or revoked by the Regents on recommendation of a State Board.

§ 176. *Admission to examination* —The Regents shall admit to examination any candidate who pays a fee of ten dollars and submits satisfactory evidence, verified by oath if required, that he (first) is more than twenty-one years of age; (second) is of good moral character; (third) has the general education required in all cases after July first, eighteen hundred and ninety-seven, preliminary to receiving a degree in veterinary medicine; (fourth) has studied veterinary medicine not less than three full years, including three satisfactory courses, in three different academic years, in a veterinary medical school registered as maintaining at the time a satisfactory standard; (fifth) has received a degree as veterinarian from some registered veterinary medical school. The degree in veterinary medicine shall not be conferred in this state before the candidate has filed with the institution conferring it, the certificate of the Regents that three years before the date of the degree, or before or during his first year of veterinary medical study in this State, he has either graduated from a registered college or satisfactorily completed an academic course in a registered academy or high school; or has a preliminary education considered and accepted by the Regents as fully equivalent." [See pp. 8–10 for preliminary educational requirements].

§ 178. *Examinations and Reports.*—Examination for license shall be given in at least four convenient places in this State and at least four times annually, in accordance with the Regents' rules, and shall be exclusively in writing and in English. Each examination shall be conducted by a Regent examiner, who shall not be one of the veterinary medical examiners. At the close of each examination, the Regents' examiner in charge shall deliver the questions and answer papers to the board, or to its duly authorized committee, and such board without unnecessary delay, shall examine and mark the answers and transmit to the Regents an official report, signed by its president and secretary, stating the standing of each candidate in each branch, his general average, and whether the board recommends that a license be granted. Such report shall include the questions and answers and shall be filed in the public records of the university. If a candidate fails on his first examination, he may, after not less than six months' further study, have a second examination without fee. If the failure is from illness or other cause satisfactory to the Regents, they may waive the required six months' study.

§ 179. *Licenses*—On receiving from the State board an official report that an applicant has successfully passed the examination and is recommended for license, the Regents shall issue to him, if in their judgment he is duly qualified therefor, a license to practice veterinary medicine. Every license shall be issued by the university under seal and shall be signed by each acting veterinary medical examiner of the board and by the officer of the university who approved the credentials which admitted the candidate to examination, and shall state that the licensee has given satisfactory evidence of fitness, as to age, character, preliminary and veterinary medical education and all other matters required by law, and that after full examination he has been found properly qualified to practice. . . . . . . Before any license is issued it shall be numbered and recorded in a book kept in the Regents' office and its number shall be noted in the license. This record shall be open to public inspection, and in all legal proceedings, shall have the same weight as evidence that is given to a record of conveyance of land.

§ 180. *Registry*—Every license to practice veterinary medicine shall, before the licensee begins practice thereunder, be registered in a book to be known as the "veterinary medical register," which shall be provided by and kept in the clerk's office of the county where such practice is to be carried on, with name, residence, place and date of birth, and source, number and date of its license to practice. Before registering, each licensee shall file, to be kept in a bound volume in the county clerk's office an affidavit of the above facts, and also that he is the person named in such license, and had, before receiving the same, complied with all requisites as to attendance, terms and amount of study and examination required by law and the rules of the university as preliminary to the conferment thereof, and no money was paid for such license except the regular fees, paid by all applicants therefor; that no fraud, misrepresentation or mistake in any material regard was employed by anyone or incurred in order that such license should be conferred. Every license, or if lost, a copy thereof, legally certified so as to be admissable as evidence, or a duly attested transcript of the record of its conferment, shall before registering, be exhibited to the county clerk, who only in case it was issued or indorsed as a license under seal by the Regents, shall indorse or stamp on it the date and his name preceded by the words: "Registered as authority to practice veterinary medicine, in the clerk's office of ——— county." The clerk shall thereupon give to every veterinarian so registered a transcript of the entries in the register, with a certificate under seal that he has filed the prescribed affidavit. The licensee shall pay to the county clerk as a total a fee of one dollar for registration, affidavit and certificate."

CATALOG OF STUDENTS

1898–1899

Third Year Students

Fish, P. A.	Ithaca
Fowler, F. (D. V. S.)	Mexico
Gay, C. W.	Ithaca
Illston, H. W.	Ithaca
Kanstoroon, D. S.	New York City
Perkins, C. R.	Hardy's
Potter, Chas. B.	Ithaca
Scammel, F. G. (D. V. S.)	Lafayette

Second Year Students

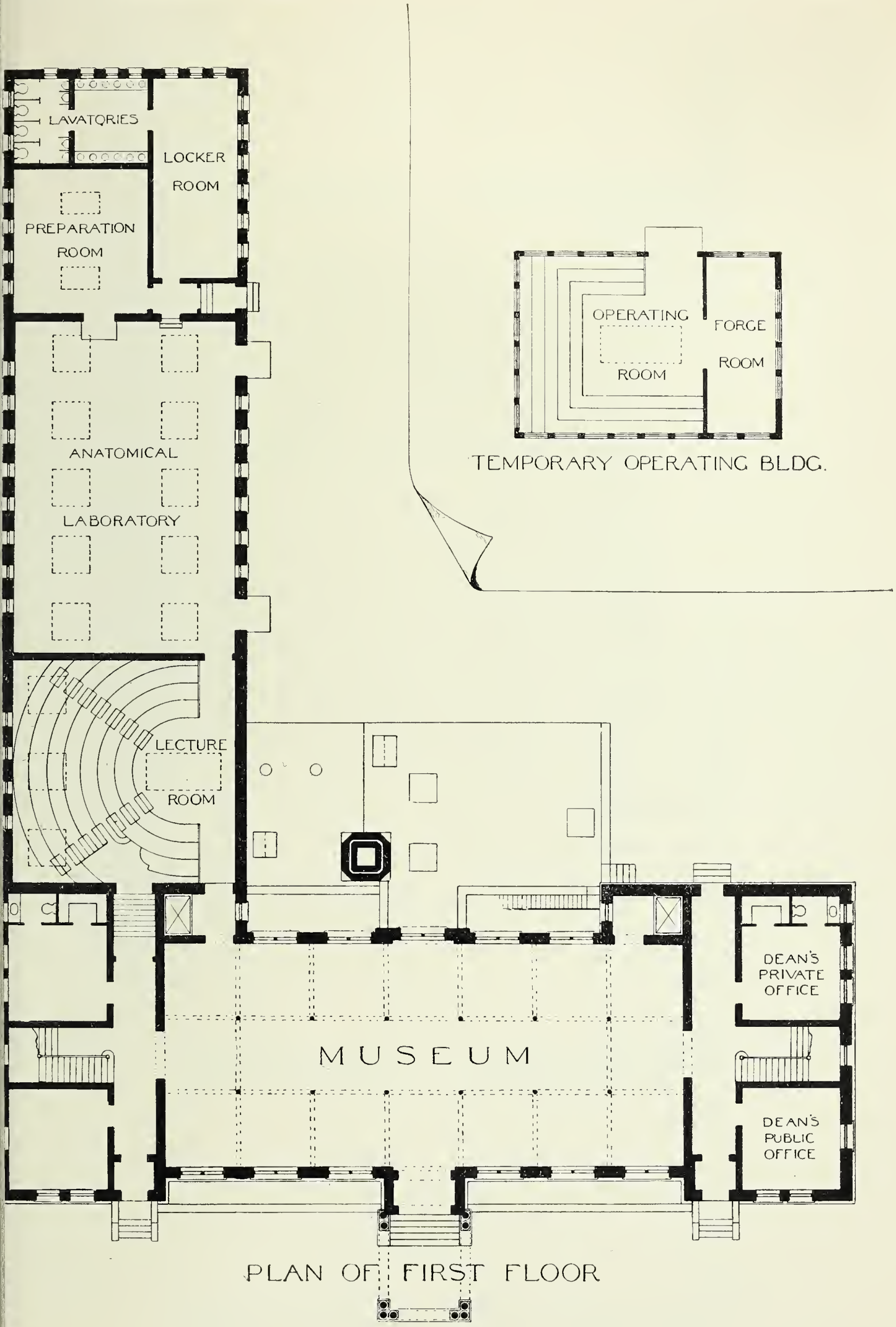
Barnes, C. L.	Lockport
Hopkins, G. S.	Ithaca
Jewell, C. H.	Slaterville Springs
Juliand, Louis	Greene
Mitchell, W. J.	Ithaca
Reed, R. C.	Ithaca
Stone, G. T.	Binghamton

First Year Students

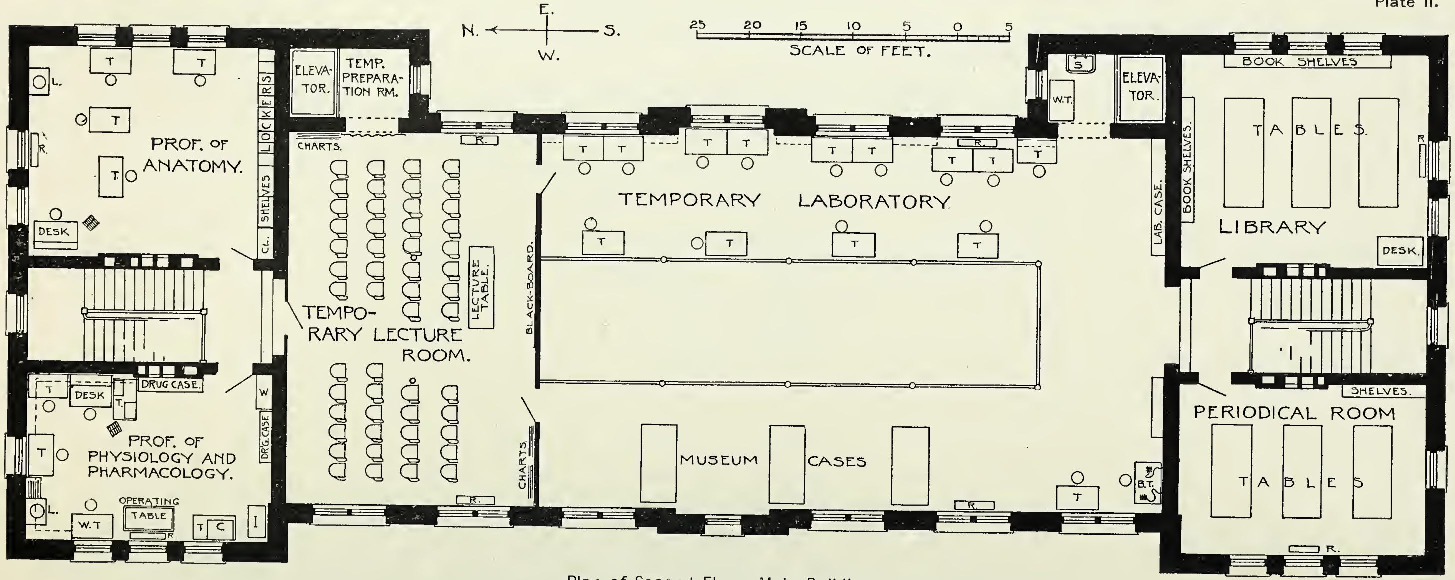
Fish, H. S.	Waverly
Flocken, C. F.	Ithaca
Gallagher, B. A.	Ithaca
Hazen, R. H.	Ithaca
Schvimmer, S. S.	New York City
Shaw, C. E.	Perry City
Ward, A. R. (B. S. A.)	Ithaca
Wilder, J. L.	Akron

Special Students

O'Leary, J. P. (D. V. M. Harvard)	Buffalo

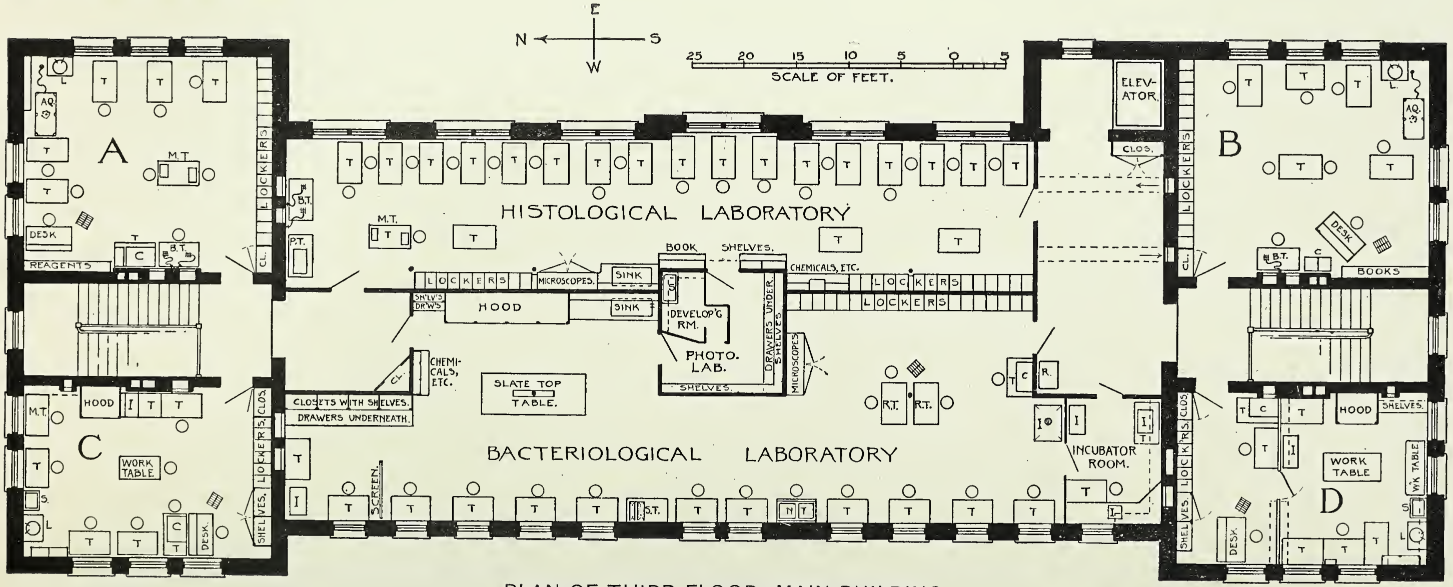


MAIN BUILDING.



Plan of Second Floor--Main Building.

TEMPORARY LABORATORY OF PHYSIOLOGY AND PHARMACOLOGY.



PLAN OF THIRD FLOOR--MAIN BUILDING.

A.—Laboratory for Research in Histology and Embryology.

B.—Laboratory of the Professor in charge of Microscopy, Histology, Embryology.

C.—Laboratory for Research in Bacteriology and Comparative Pathology.

D.—Laboratory of the Professor in charge of Bacteriology and Comparative Pathology.

Plate IV.

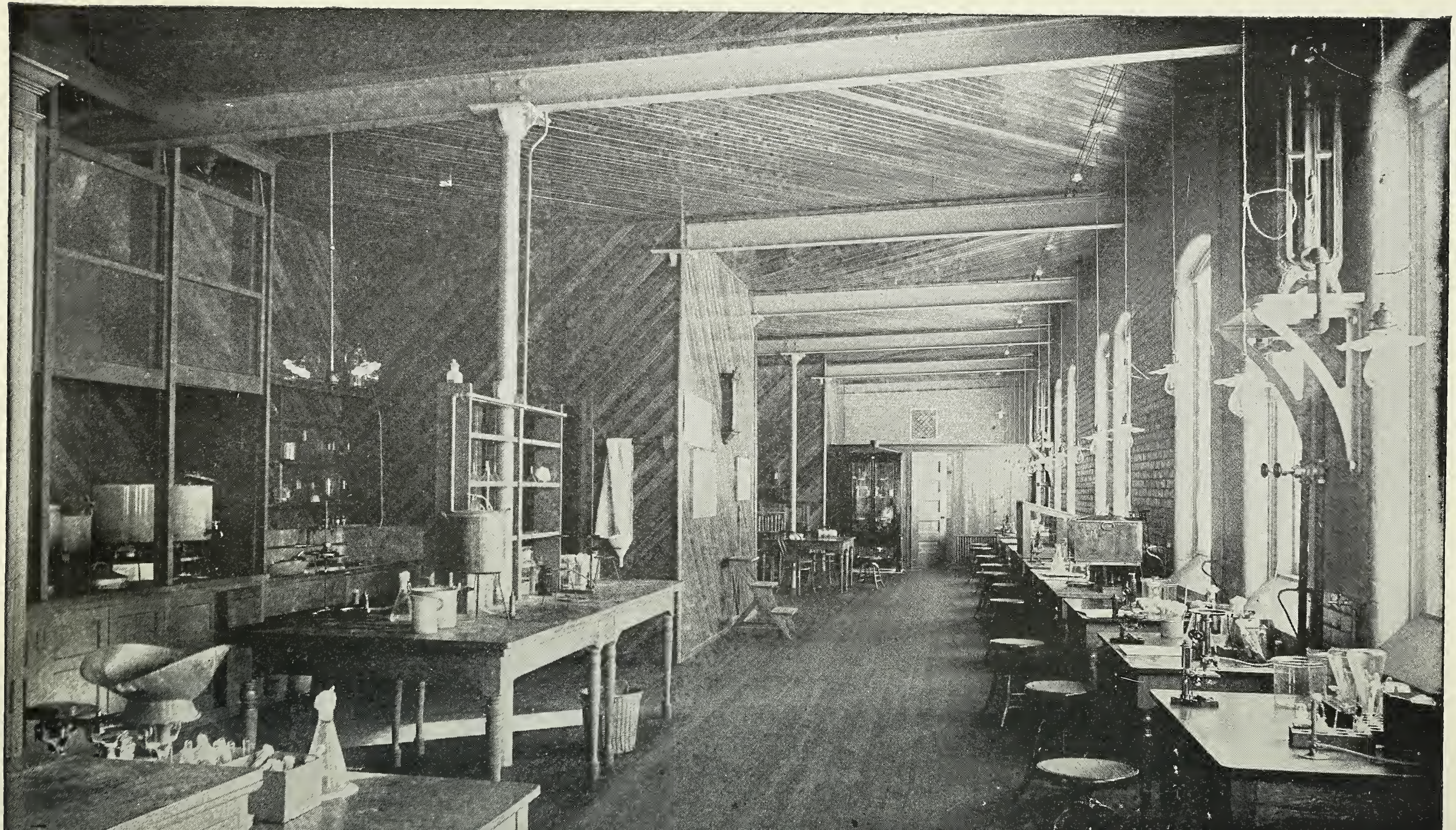
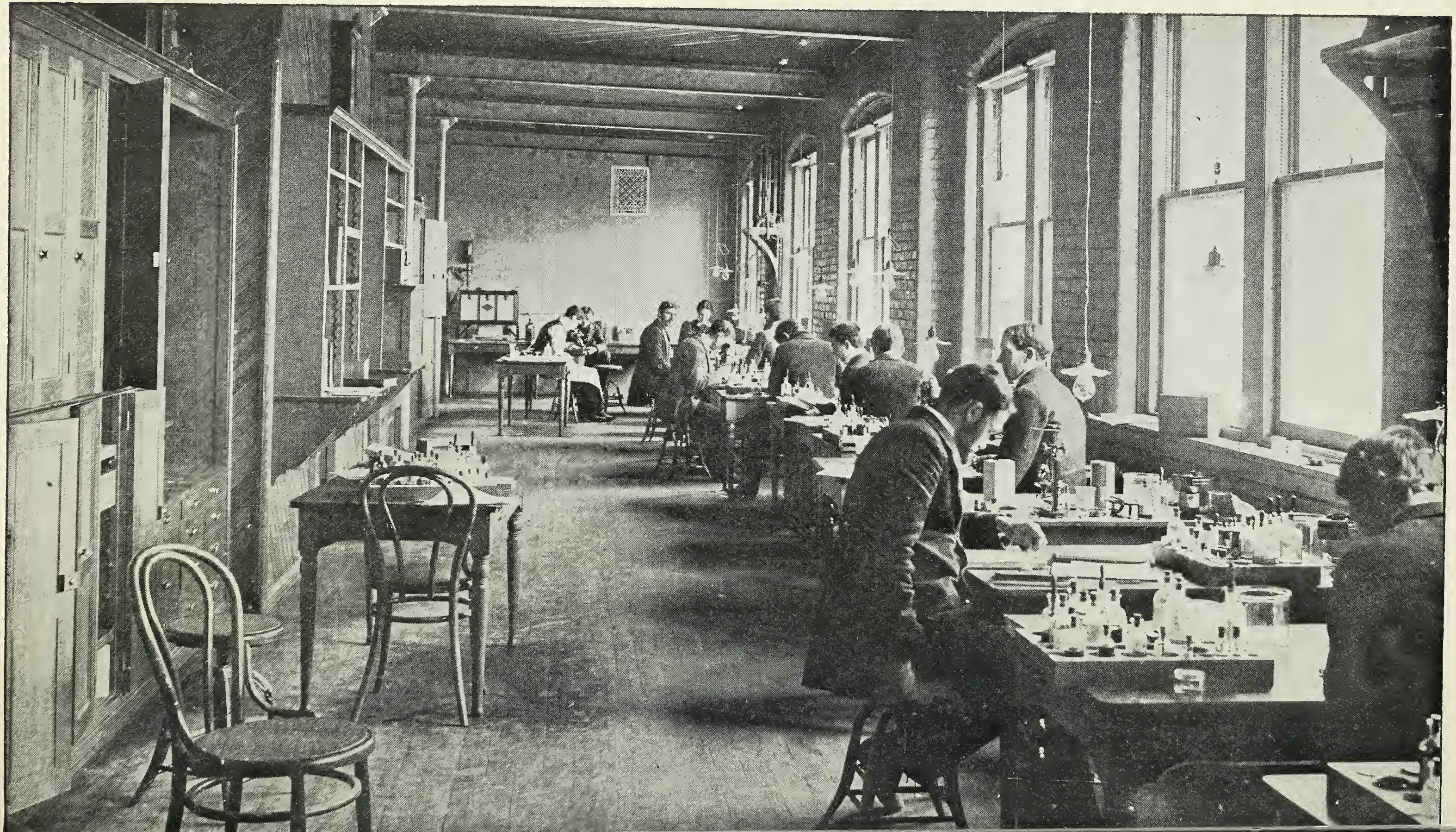
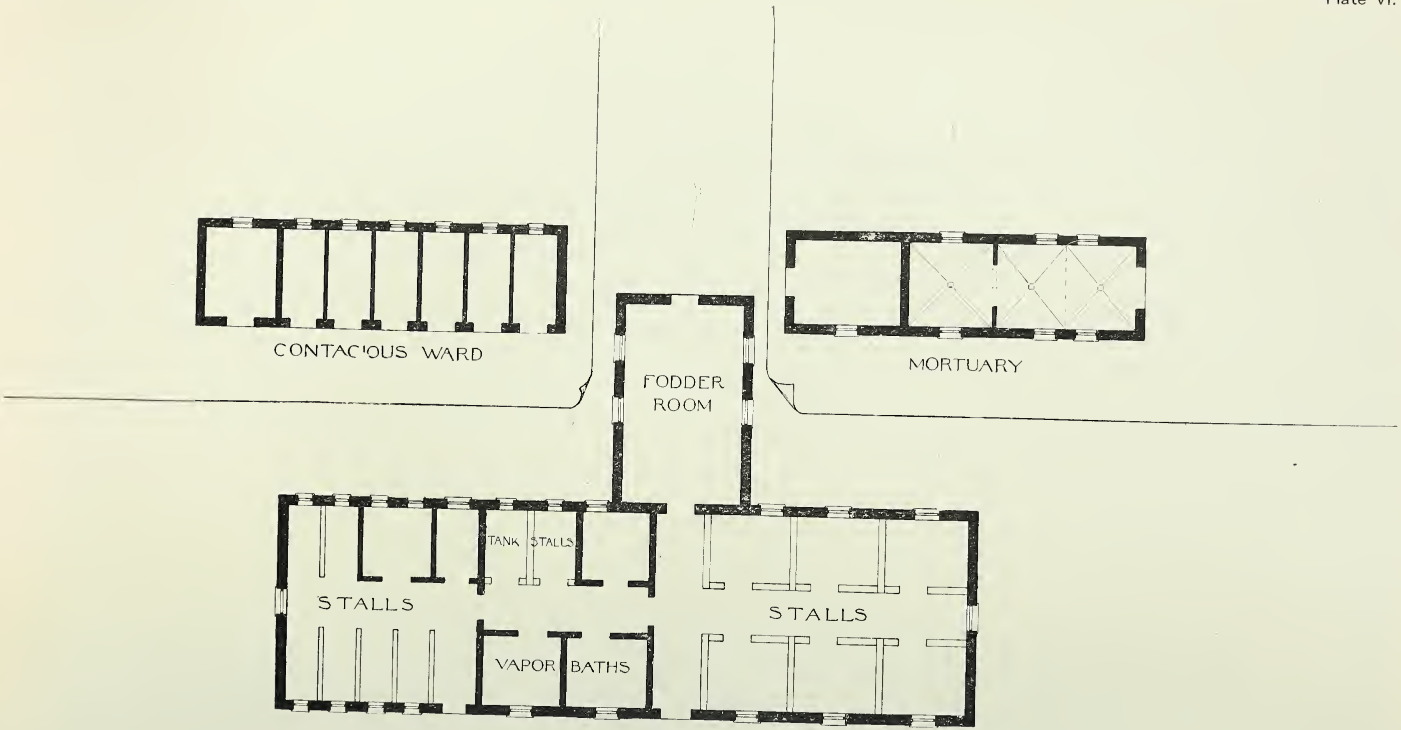


Plate V.





PLAN OF GENERAL WARD

CONTAGIOUS WARD AND MORTUARY.

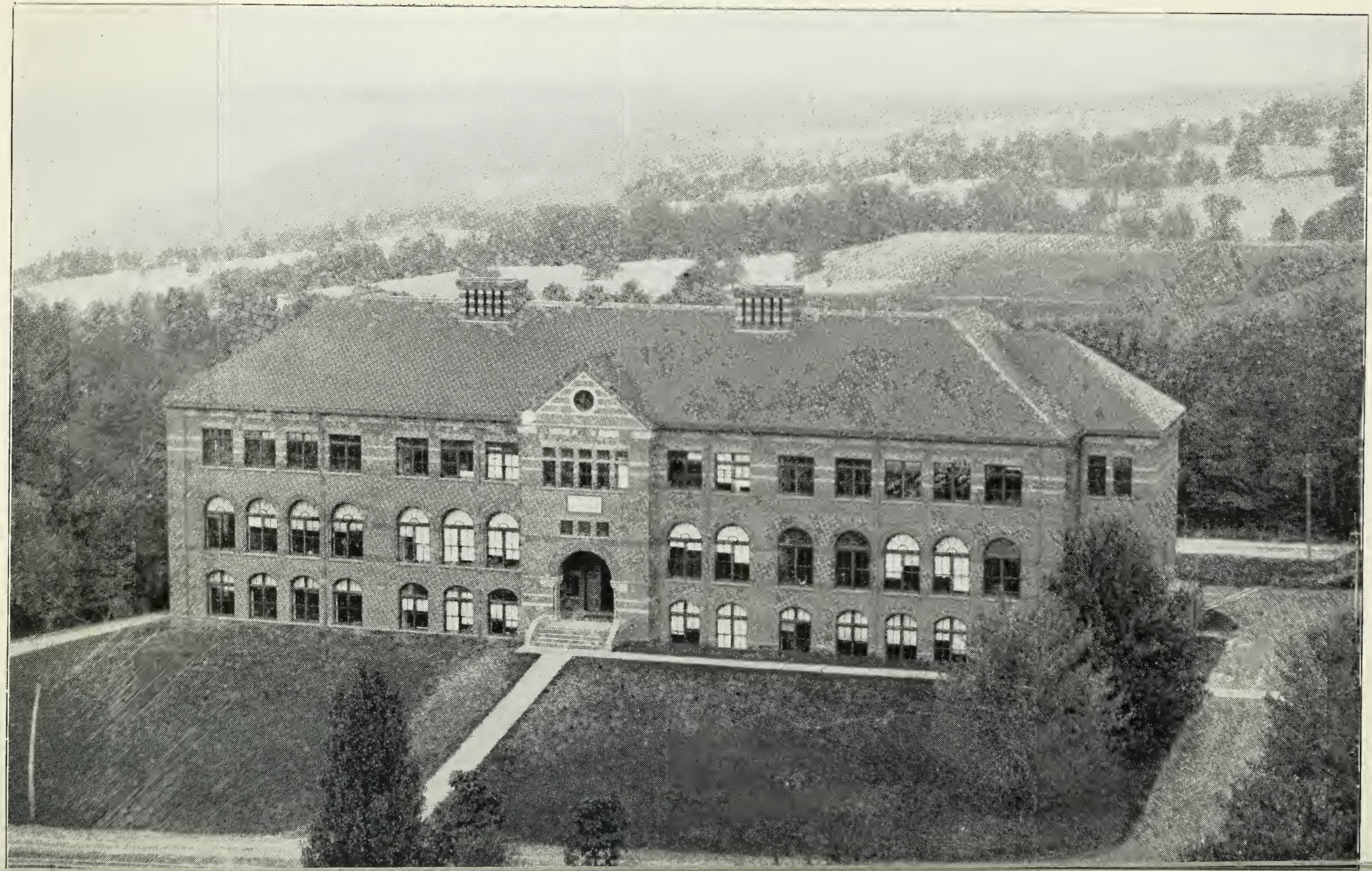
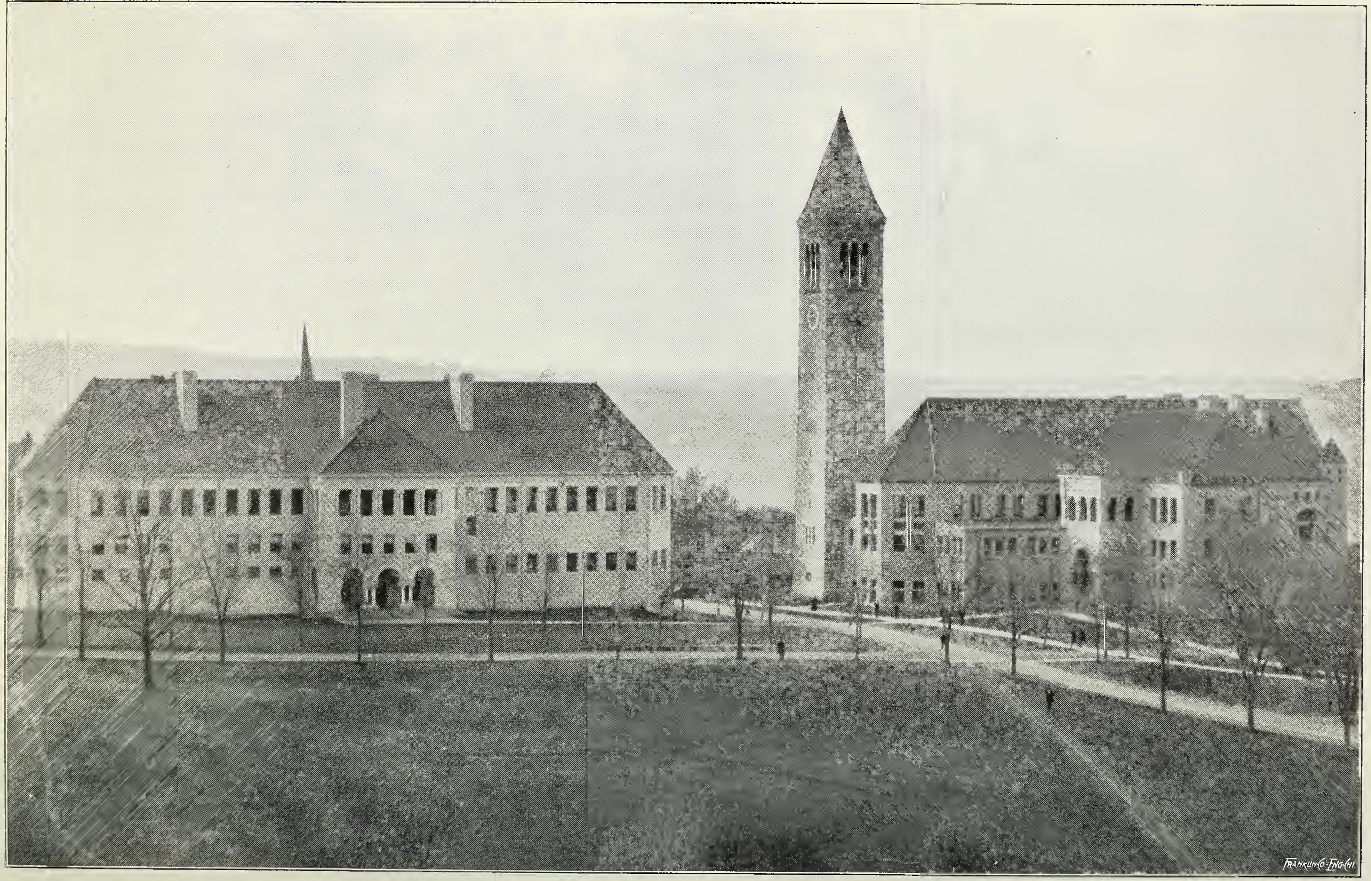
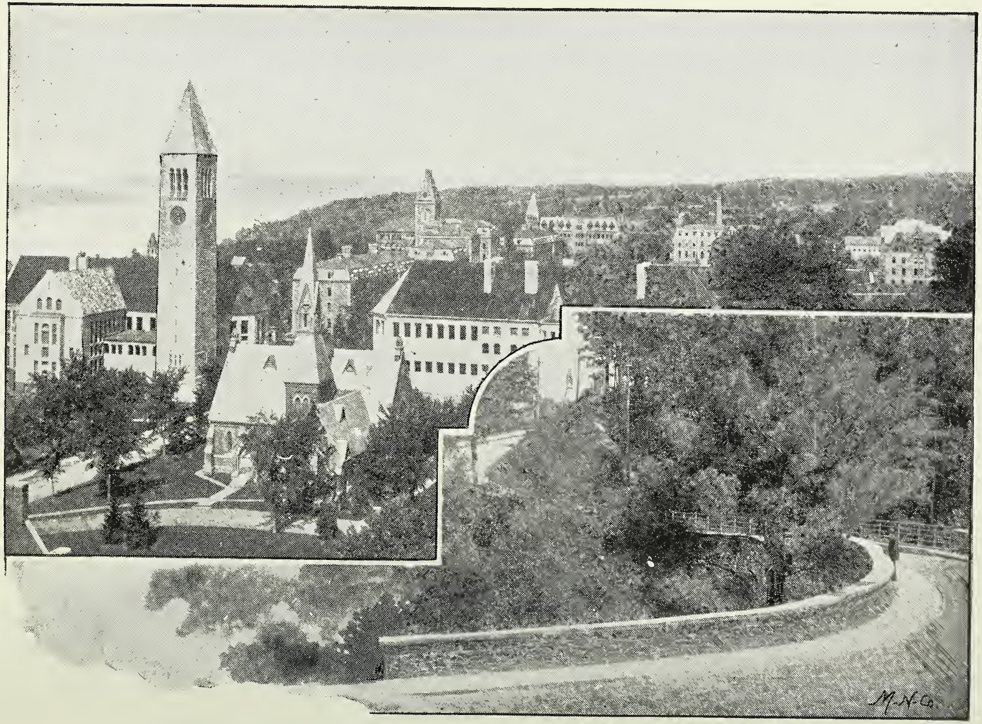


Plate VIII.

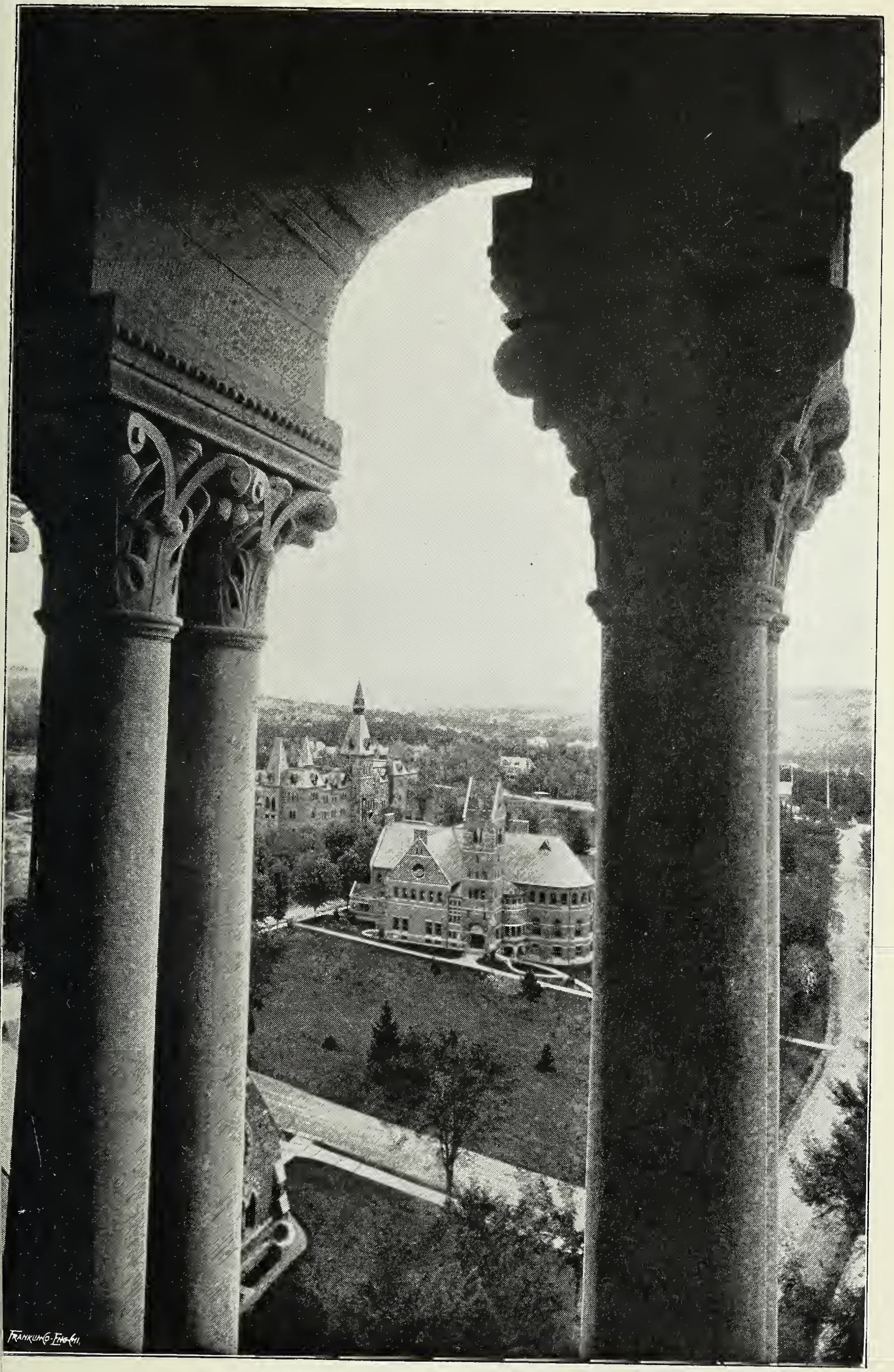
DAIRY BUILDING--BREEDS AND BREEDING



AND UNIVERSITY LIBRARY—Looking South



UNIVERSITY CAMPUS AND CASCADILLA BRIDGE—Looking North.



UNIVERSITY CAMPUS—Looking South from the Library Tower.

CORNELL UNIVERSITY

PUBLICATIONS

1. The Cornell University Register. This is the general publication of the University, and gives information upon all colleges and departments. It also contains a catalog of the Board of Trustees, the Faculty and the Students.
2. Announcement of all courses of instruction.
3. Question papers used at examinations for admission, admission to advanced standing and for university scholarships.
4. Announcement of the Cornell University summer session.
5. Announcement of the College of Law.
6. Announcement of the College of Agriculture.
7. Announcement of the New York State Veterinary College.
8. Announcement of the College of Architecture.
9. Announcement of the Cornell University Medical College.
10. Announcement of summer courses in medicine.
11. Announcement of the New York State College of Forestry.
12. Bulletins of the Cornell University Agricultural Experiment Station.
13. Teachers' leaflets in Nature Study.

Any of the above publications and other special announcements may be had upon application. Address: *The Registrar of Cornell University, Ithaca, New York.*

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